The role of design in generating urban futures

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GENERAL INTRODUCTION

"…The streets… their dark corners, my desire to run away, my guilt – they were all blinking on and off like neon lights in my head. I knew now that tonight my mother and I wouldn't have our fight. In a few minutes I would open the door and escape into the city's consoling streets; and having walked away half the night, I'd return home and sit down at my table and capture their chemistry on paper".

"I don't want to be an artist", I said. "I'm going to be a writer."

(Omat Pamuk, 2003, "Istanbul", p.368)

"After decades of acrimonious debate on the nature of scientific knowledge, researchers in the human or social sciences are reaching a state of relative equanimity, a condition that may be characterized as a reflective pragmatism. Yet, even while the context has favored the development of new forms of research, the longstanding ocular metaphor of inquiry remains pervasive. That is, researchers continue the practice of observing what is the case, with the intent to illuminate, understand, report on, or furnish insight into given states of affairs. And, while selectively useful, such an orientation is not only limited in potential but subject to a receding span of application. As I will propose, when the logics of reflective pragmatism are fully extended, we enter a new territory of understanding, one in which the vision of research is radically altered. We replace the captivating gaze on the world as it is with value based explorations into what it could be. This conception of a future forming orientation to research opens the way to new aims, practices, and reflections".

(Kenneth J. Gergen, 2014, Opening Abstract to:
"From Mirroring to World-making: Research as Future-forming")

"Design is an act of love".

(Stefano Marzano, 2005, quoted in: Kusume, Gridley, 2013, p.3)

The power of the city on the imaginary of writers, artists and architects appears to reach no limit. In modern and contemporary times, from Ernest Hemingway's Paris to Italo Calvino's fictional Marco Polo, to Omat Pamuk's Istanbul (Pamuk, 2003), the narration of the city is a *topos* within our humanities, nowadays amplified by the relevance and ambition that both metropolitan regions as well mid-size towns express in economic, political and socio-cultural terms. This at a time when an architectural thought leader like Stefano Boeri, who is also involved in political leadership and cultural policies, formulates the hypothesis that the "urban format" will disappear, at least as Italy and other advanced economies know it. From the city as a self-contained place to the emergence of a metropolitan disorderly continuum in space, identified as the "anti-city" (Boeri, 2011, x). The subject of this PhD study is a method to envision what cities will become tomorrow, or urban futures, namely a process determining how to anticipate them through a design-led innovation approach. The focus of the study itself is a hybrid innovation approach, working as a business development and product generation platform, in the context of a major multinational corporation across its business and

service units. One might say that the intent of this PhD is to explain such innovation platform in terms of its history and context, complemented by the opportunity to develop and test a number of hypotheses about the nature, the function and the meaning of design, of research and of studying the future in postmodern times.

The purpose of this general introduction is to frame a number of key focus points that will be developed throughout this PhD thesis. At best, this introduction will constitute an opening summary of the PhD study connecting to the conclusions of Chapter 9 (empirical) and 10 (reflexive). Where both the procedurally coded qualitative outcome of primary research as well as an auto ethnographic account of key informal moments and personal memories are provided, analyzing city.people.light, the Philips urban futures program that is the applicative playground for the entire thesis. The aim is to depart from theoretical reflections, towards empirical explorations and reflexive considerations, distilling grounded theory in the process. In order to provide the most efficient and effective overview the introduction will be structured in the following sections:

- topics and motives;
- Central Phenomenon and Key Research Question;
- epistemological rationale;
- scientific value and contribution;
- empirical core;
- editorial structure;
- editorial articulation;
- peculiarities.

After this introduction a summarized overview of fundamental elements necessary to orientate oneself across the PhD study will be available, as reference and support to navigate the sections ahead. It must be anticipated that, to add complexity to the challenges ahead, the “PhD researcher” acted as the “research principal” in 2011 – 2015, steering the socio-cultural analysis of urban futures and co-directing a series of workshops (formerly “Director” of the entire project in 2006 - 2007). The researcher therefore led and consulted for nearly a decade Philips Lighting for the definition, design and direction of those city.people.light programs under this microscope in the context of PhD “research objects”. This peculiar duality between “consulting principal / director” and “PhD researcher” forms a scientific challenge that will be reiterated in multiple points and from multiple perspectives. It will require careful reflexive consideration and attention. All the same, this unique condition of “insider” will enable the generation of anecdotal evidence and systematic recall, to uniquely complement both bibliographic references and empirical sources, providing this PhD thesis of an additional layer of introspection.

Topics and Motives of the PhD Thesis

The main motive behind this PhD project is the description and understanding of a number of dynamic phenomena and events over time (1996–2014 in terms of history and context, with specific focus on 2006–2014). Such events concern shifts and tensions at the heart of topics articulating the general tension “reflection versus action” (Germans, 1990). The PhD research has been conceived, designed and executed leveraging historical referencing, epistemological reconstruction and theoretical development, combining reflexive and empirical constituencies. On these multiple bases the PhD study aims at identifying critical nodes at an epistemic level, where philosophy of science, semiotics and design theory might provide markers highlighting the transformation from

modernist and positivist notions of innovation and planning to more postmodern, collective, communicative approaches functional to generative future-making. The general synthesis of key concerns and urgencies addressed by the study could be formulated as a continuum. Stretching from theorizing *"in vitro"* to practicing *"in vivo",* with the sound awareness that social sciences, including futures research as a subsector thereof, do not present a fixed object landscape (as astronomy does). Therefore, by definition, social sciences might be regarded as "historical". In this sense the focus on the city offers an arena of contradictions and complexities where both the world as well as the micro-dimension of one specific company program can be observed and narrated, as an example, of a paradigm change from industrialist to participatory thinking. One might isolate, among others, five core topics, as identified by means of dichotomies, unfolding across this PhD study, namely:

a) modernism versus postmodernism, as a dialectic tension where positivist research structures have been challenged by new research methodologies and thinking mindsets, from the late 1960's onwards;

b) structure versus practice, as isolated by De Certeau to represent the fundamental poles of a tension, where power translates into the ability to own and determine the configuration of space, while antagonist resistance works in the residual interstitials of behaviors and lifestyles;

c) positivism versus constructivism, to represent the epistemological extension of the fundamental tension mentioned at a) above, while in parallel offering the opportunity to extend the scientific domain to practices and minor phenomena;

d) meaning-making, as an imperative of contemporary network society, where synthesis and conversion of topics into actionable semantics are key in the epistemological shift described by Gergen as: "from mirroring to future-making" (2014);

e) simplification, as a priority of design processes within complex organizations, in order to enable the emergence of perceived (thought) leadership.

Notions of social utility (Gergen, 2014, p.4, p.9) versus endurance (Gergen, 2014, p.10) will be articulated, with the proposal of a specific approach to organize the context and conditional operations of "design" practices will be identified as potential synthesis to the research and action-related tensions and challenges above. Furthermore, there is a more personal level of intrinsic motivation. The PhD researcher is a former futures researcher leader (with "preferable futures research scenarios" as investigated in that setting) at Philips Design. For a decade, 1999 – 2009, he was fully involved as "insider" in the company practice. One might say that city.people.light is both an early manifestation and perhaps the most successful, longest surviving brainchild of this futures research practice at Philips. However, this trend analysis team tasked with the study of what lies ahead did not always manage to anticipate "minority report" possibilities of dystopian futures. Examples of the latter might include the 2007 credit crunch and subsequent socio-political crisis provoked by economic collapse in banking systems and national advanced economies. Since 2009, the personal awareness of this insufficiency provided an additional urgency to critically investigate city.people.light, as applied best practice from an academic perspective, in order to contextualize, validate and revisit a decade of professional commitment to futures studies, from a PhD formal

viewpoint. Because theory determines what is data (Gergen, 2014, p.3), the starting and arrival points of this PhD study will be theoretical, in bibliographic and grounded forms, respectively.

Central Phenomenon and Key Research Question

The focus of this PhD study lies on specific (city.people.light) products (books) and processes (workshops) that generate (visually articulated) visions, scenarios and concepts. The combination of city.people.light products and processes results in a multipurpose mix of scenarios, concepts, relationships, comprising both insights about urban futures and actionable assets to innovate and deliver on such insights. Semiotic-wise, this combination *"stands for"* potential urban design developments in the future. One might describe city.people.light as a multipurpose approach, where a number of formal activities, including qualitative research and participatory workshops, are complemented by a conscious internal lobbying and external networking effort. A typical city.people.light cycle historically last from two to four years, comprising: a) a qualitative research project, based on interviews with thought leaders and decision-makers in city management and urban architecture; b) a number of workshops, involving lighting design professionals at regional level; c) the publication of outcome in the form of highly visual books and their valorization in conferences and lectures; d) the analysis and activation of specific scenarios and concepts in the corporate strategic marketing and innovation pipelines; e) the academic valorization and networking exploitation of outcomes, with commercial focus of relationships. Qualitative research might be treated as the source for triggering insights about urban futures. A typical city.people.light workshop entails one to two days of facilitated working sessions, starting from the presentation of qualitative research findings. At the heart of workshops, stakeholders are invited to assume a participatory, proactive role, in order to envision and deliver concepts of future urban lighting. Facilitation entails the creation of optimal enabling conditions for participants to perform, from white sheet to final concept, re-connecting their work to urban futures hypotheses presented as qualitative research findings. Subsequently, the outcome of a number of coherent and comparable workshops is edited into an appealing, highly visual publication, to be distributed among various valorization channels. A city.people.light book typically does not represent a potential "customer gift", just like a city.people.light workshop does not represent an opportunity for direct sales. The communication aspect of this strategy is geared towards the creation of perceived thought leadership status, for longer-term brand reputation benefits. Therefore, city.people.light is presented and managed as an independent knowledge-driven platform, with Philips acting as organizer and facilitator. Besides reputation benefits among mission-critical audiences, city.people.light programs historically delivered substantial input to the strategic marketing and innovation pipelines of Philips Lighting, offering analytical "insights of the future" in the urban context. On the basis of such insights, a number of highly successful Philips Lighting products were developed through the last two decades, with demonstrable and documented connection to ideation outcome of city.people.light. The empirical section (Section III) of this PhD will dissect city.people.light products and processes, on the basis of qualitative data.

It does not appear necessary to focus this PhD introduction by anticipating a plain description of operational details of city.people.light. Instead, it must be stated how the intellectual and methodological backbone of city.people.light is High Design. High Design is a specific approach within the broader "Design" field and a historical corporate process within Royal Philips NV. It integrates aesthetic, manual and conceptual design

capabilities with sociology, psychology and anthropology, to operate as a humanistic complementary factor within a High Tech, scientific, financially-driven business context. The analysis will therefore unfold within a specific vision of design and design management, which historically extended its reach to also position "Design" as an actor, as a driver and as a multidisciplinary agency for the pursuit of "preferable futures". One might qualify this design approach as postmodern, in historical terms, as it was defined in 1991 by Stefano Marzano, first Managing Director, then CEO and Chief Creative Director of Philips Design, as a visionary attempt to counterbalance, with a humanistic vision, the preponderance of science, engineering and High Tech within Royal Philips NV. One might state that the Philips portfolio of technical competences embodied the entrepreneurial rise, the commercial success and the modernist ethos of the corporation since its foundation in 1891. However, with the beginning of the 1990's the world appeared less linear than it had been before, more complex: *"The answer to High Complexity may be sought in what I call 'High Design'. By 'High Design', I mean an integrated process incorporating all the skills on which design has historically itself, plus all the new design-related skills we need to be able to respond to the complexity and challenges of the present and anticipate those of the future. The High Design process is one which continuously adopts more advanced cultural and technical criteria. It is based on the fusion and interaction of high-level skills. Certainly, calls for the collaboration of designers, psychologists, ergonomists, sociologists, philosophers and anthropologists have been made in the past…"* (Marzano, 1991, reprinted in: Marzano, 1998, p.16). The future orientation of High Design is both intrinsic and organizational. At intrinsic level it accentuates the very nature of "Design" to project ideas to the future, as the act of designing is the envisioning, sketching and conceiving of ideas, sensorial qualities and material manifestations that will be experienced in a future dictated by the necessary cycles of production, distribution and fruition. At an organizational level, High Design claims humanistic competences (social sciences) as integral "part of" the design process. Therefore, incorporating and integrating practices and disciplines that used to be at best ancillary to (modernist) industrial design processes supporting manufacturing. Whereas, within this approach they acquired the same dignity and the same operational function as structural constituencies of the postmodern design process. One might say that the social scientist becomes a designer in that he fully partakes in the design process. Whereas, the educated designer from a qualified academy performs according to both his specific competences and skills as well as an integrative perspective.

Chapters 1 through 3 constitute a bibliographic review selectively defined to provide background, depth and context to High Design constituencies from theoretical perspective, whereas chapter 4 provides a bibliographic synthesis of "what" High Design is, with a specific view on its application to the realm of urban futures, namely the city.people.light program. From chapter 4 onwards the rest of the PhD might be seen as a way to understand and describe the conditions under which High Design in the context of city.people.light, as a postmodern approach to conceive, organize and narrate the agency of "Design", was adopted in urban futures specific projects between 1996 and 2014. As much as High Design aims at leveraging postmodern notions of holism it is organizationally framed within a contemporary business set of requirements, e.g. key performance indicators. It will be reiterated, in the course of the PhD thesis, how the nature of High Design is multidisciplinary, as anticipated above. Therefore, in this respect the below Key Research Question and Central Phenomenon description should be seen as referred to "Design" as an encompassing process of meaning-making and not the plain aesthetic definition of plastic and experiential form factors for products. In essence, Chapter 4 will introduce key city.people.light references as available in

bibliographic sources, then Section III will empirically dissect the specific city.people.light programs, processes and products in their details. As a rudimentary summary for basic understanding of "Central Phenomenon" and "research purpose" below, further than what introduced above and at the risk of oversimplifying, the following key bullet points provide a pre-emptive hypothesis of the general city.people.light qualities and features, as they can be extracted and abstracted from 1996-1997, 2006-2007 global programs, 2011-2015 European and Polish national programs, plus ancillary projects:

a) city.people.light programs or projects are designed as a non-commercial "open platform", to always focus on the future of urban outdoors, with specific focus on lighting innovation;

b) city.people.light are formally based on qualitative research, in the form of a systematic enquiry through dialog with thought leaders and stakeholders. Ancillary applications or minor events might leverage earlier research, as cost-efficiently re-packaged from earlier programs;

c) within city.people.light programs, qualitative futures scenarios are streamlined into action oriented workshops, where a participatory approach results in co-creation of innovation concepts by stakeholders;

d) city.people.light as approach is based on a multipurpose strategic intent, where multiple benefits are generated through the same process, namely, for example, information gathering, innovation assets, networking exchange, reputation building and constant brand repositioning as thought leading agency in its field of operations;

e) in particular, historically, city.people.light programs always delivered editorial products (books, pamphlets, lecturing materials) and other intellectual assets, for longer term valorization and conversion into vocational and academic context;

f) city.people.light embodies the principles of High Design, as a specific application thereof envisioned for the purpose of studying urban futures and generating lighting innovation beyond the modernist / industrial paradigm;

g) as a High Design-based approach, city.people.light is universally contextualized, presented and discussed as a "Design" manifestation since its inception by Philips Design, in 1996.

Also taking into account the short introduction of city.people.light offered at page 12 above, to be expanded through empirical research, at the very heart of this PhD study, the "Central Phenomenon" and "research purpose" statements describe the precise field of theoretical reflection and empirical action:

"The Central Phenomenon is identified as the research-based process of creation and subsequent communication (through editorial products) of scenarios and concepts in postmodern times (with the initial claim that city.people.light is an application of the High Design approach, the latter being a specific proprietary people-focused, future oriented, design management process by Philips).

The purpose of this mixed-method PhD study is to understand and describe the role of

"design" in the generation of "urban futures" scenarios and concepts (namely, visions and visualizations) and subsequent communication (Central Phenomenon), *with focus on specific selected "research objects" related to city.people.light programs between 2006 and 2014".*

The "research objects" were selected among the overall portfolio of deliverables and processes characterizing city.people.light since its inception, in 1996. This was designed to guarantee methodological continuity according to the constructivist episteme and the reflexivity priority as mentioned above. The selection ensured that all such "objects" were equally related to the direct leadership role exercised by the PhD researcher between 2006 and 2014, in his "insider's capacity". For this reason and although 1996-2006 events, projects and programs will be researched as context, only two editions; 2006-2007 and 2011-2014, personally directed by the PhD researcher as Philips member of staff first and external consultant afterwards, will be analyzed to generate a grounded theoretical answer to the Key Research Question:

"How does a design process help to envision (preferable) futures for cities, under postmodern conditions?"

In particular, one should intend as specifications of the above question, that by *"…design process… …under postmodern conditions"*, it is herewith intended "High Design" as defined above, as a specific design vision, application and representation within the potentially more general category of "postmodern design processes". On this basis the analysis will unfold across a bibliographic review formulating the research background. It will then shift to a robust empirical section governed by Grounded Theory and ending with self-reflection. The explorations to address such a question will benefit from contributions from bibliography, primary research and a narratively styled personal account of the PhD researcher, with the ambition to generate a "thick description" of the Central Phenomenon and its ancillary constituencies, based on a preliminary review of existing theories of futures studies, action-oriented research, and design. The consistency and coherence of the above described selection principles were considered a major prerequisite for all the choices made from research design to evaluation. For example, in order to construct an understanding of collateral and contextual activities of city.people.light, two separate and unrelated projects were selected. One successfully accomplished without any involvement of the PhD researcher ("Strijp Lighting Experience Masterplan", Philips Design for Municipality of Eindhoven, 2008) and one where the PhD researcher played a fully operational role, injecting mission-critical connections and variations ("Architects of Light", Philips Lighting Poland SA, 2012-2013). Both projects were the object of separate and unrelated expert interviews, both projects were investigated in terms of their deliverables and their processes, and both projects together represent an entire spectrum of city.people.light extensions, tested according to different modalities of involvement of the PhD researcher. Besides "Strijp Lighting Experience Masterplan" and "Architects of Light" as examples of spin off from city.people.light, it must be stressed how the specific research strategies and tactics adopted were functional to the unique situation where the Central Phenomenon occurred over time. Events were recorded in extant documents and discussed with interviewed experts. Furthermore, personal memories, individual memos and intellectual impressions pertaining the direct experience and history of the PhD researcher, were leveraged as a unique knowledge generation opportunity.

Epistemological Rationale of the PhD Thesis

Futures research is an arena of great debate, as it might be expected of any vocational and academic field of a relative multidisciplinary and young nature. As such "futures research" might be generalized into the notion of "*whatever people do when they engage with thinking or making the future" (ref: J.Rijsman, face to face meeting, 22.09.2015, 16:00CET).* One might say, in line with Gergen's recent reflections (Gergen, 2014, pp.19-20) on research as future-forming, that the plain study of the future without engagement leads to pure speculation. Whereas the ultimate power of influence by futures research beneficiaries (turned activists), or by designers, might lie in the conception and activation of "self-altering prophecies". It is important to clarify that the epistemological ideas herewith introduced represent an ancillary and auxiliary apparatus. Such an apparatus was defined to serve the specific purpose of understanding a concrete case, namely city.people.light (in terms of products and processes), as a subcategory of High Design. Here, a postmodern view of social sciences is adopted in order to enable the understanding of city.people.light as the phenomenon under study. Hence, here philosophy of science is a mere reflection and not the purpose. While it would be incorrect to epistemologically differentiate between different classes or forms of prediction, it should be specified that this PhD study does not address positivist forecasting in terms of repeatable laboratory experimentation, based on universal laws of nature, as in physics or chemistry. In those fields, and more in general, in all fields regulated by positivistic processes based on determinacy, experimental predictions enjoy a high degree of confidence in their outcome. Instead, the field of the PhD research herewith introduced is that of longer term social and urban dynamics. Here, creation of confidence by means of experimental repetition, regulated by positivist procedures is not feasible in spite of the potential falsifiability of results over time. Here, historical feedback and learning from knowledge differentiates human collective organisms from natural entities, from microscope to astronomy. Furthermore, the direct involvement and the participatory role of the PhD researcher within the processes and products that constitute the subject of this analysis required both operational reflexivity and theoretical reflection. In such a context theoretical and epistemological reflections and a solid formal triangulation by means of an empirical component appeared most needed as the outcome is less repeatable by experiment.

The "ontological nature" of the future is one of "not being there" by definition, as both the future and the past both do not exist at the "present moment" of an experiment, an analysis or the conception of a design vision. This determined the need to identify and adopt an appropriate epistemic view. In this respect, one might associate the work of futures researchers with the concerns of historians, especially those working in the awareness of the *"linguistic turn"* of their science (Staley, 2007, p.2). As anticipated, the key epistemological backbone of this PhD study will be constructivism, an inclusive, holistic episteme that was identified as most fitting with the notion of collective creation and participation that permeates action research and co-design, both important topics of investigation articulated throughout the PhD study. Complementary to constructivism, critical realism was identified as a secondary reference. For the purpose of explaining the feasibility of futures research projections and findings, taking into account the necessity to work on non-existing "objects", to be replaced for empirical purposes by "posits" and "knowledge surrogate" that do "stand for" the unknown that will come next: *"Critical realism is a philosophy of and for social sciences. It is mainly concerned with ontology, with being, and has a relatively open or permissive stance towards epistemology…"* (Sayer, 2000, p.32). A general distinction between these two

epistemological notions could be identified in the fact that while critical realism implies the objective existence of an object to "ground" research, constructivism views any reality as mere outcome of context and interaction. Hence, being exposed to the risk of drifting into solipsism *(ref: Skype meeting with P.Bishop, 16.09.2015, 20:00CET)*. From the simplified viewpoint of this PhD study constructivism will be set as the overall reference episteme. While critical realism will play an ancillary role in providing a link in a multidisciplinary review of potential explanations of how futures research works, from science to semiotics. It must be, however, clearly reiterated how any epistemological contextualizing reference will serve the intent of explaining the role of design, namely of High Design, in future-making perspective.

The ambition to combine constructivism with critical realism led to the natural conclusion to adopt a mixed approach, with a *"bricolage"* method, where Grounded Theory principles govern main empirical analysis. It was chosen for the *"postmodern turn"* of Grounded Theory, hence opting for the main reference with a recent 2000's academic author, while respecting the original 1967 milestones. A complete dissection of the methodological heart of this PhD will be presented in Chapter 5 and is therefore not further detailed in this introduction. For the rest, this PhD study remained flexible and elastic, open to adopt ad hoc methods, from case study to auto ethnography, depending on the specific challenges posed from chapter to chapter. It might be anticipated how a *"bricolage"* approach, mixing different epistemological and methodological streams, also resonated with the nature of the entire field of examination. Both futures studies and High Design domains are naturally oriented to multidisciplinary contamination and cross-fertilizing, both at the level of practices as well as at the moment of theoretical elaboration. Parallel to the motivations that led to the final awareness that a mixed method approach was optimal for his PhD project, the notion of *"abduction"* as the modality of inference emerged. At first, connected to the rationalization of how futures research might be formally conducted in absence of its "proper", then at a higher epistemological level. *Abduction* is an inference modality that many classify as totally independent from deduction and induction, or anticipating the following chapters; *"A method of forming a general prediction without any positive assurance that it will succeed either in the special case or usually, its justification being that it is the only possible hope of regulating our future conduct rationally"* (Fischer, 2001, p.13). It aims at capturing those knowledge creation processes that might be based on intuitive passages or tipping points. Abductive practices are not necessarily non-falsifiable, on the contrary (under certain conditions), they might be verified through procedural processes, e.g. including extrapolation, induction and scientific praxis according to the standard formal protocols. However, *abduction* works on intuition, accumulated experience, tacit knowledge and modalities such as "*Trained Judgement*", to be introduced in Chapter 4.

Empirical / Primary Research core of this PhD Thesis and Preview of Conclusions

This PhD study is based on various empirical assets and multiple hybrid sources, including: a) secondary research on contemporary or historically selected bibliography, b) examination and analysis of extant documents both of public as well as of non-public nature according to the case study, c) memoing and recall of direct experience and immersion of the observed facts by the PhD researcher, d) informal discussions and ongoing dialog with PhD promotors and additional experts, both at formal and informal levels, e) an original ad hoc empirical research project. Based on the governing constructivist episteme, mitigated where appropriate by critical realist principles, the aforementioned *mixed method* will integrate sources, resources and assets, being as

varied as from published references to auto ethnographic reflexivity. At its empirical heart, *"primus inter pares",* lies the primary study, as based on purposive sampling principle, substantiated by 13 expert interviews, designed and executed between September 2013 and February 2014. The nature of these semi-structured dialogs, based on recurring topics formalized in a unified item list, was explorative and functional to open the field of investigation. This means that such interviews were indeed responding to an item list constructed on the basis of key theoretical concepts identified in earlier chapters. However, they were not set out to test any theory or to focus on probing specific hypothesis. On the contrary, they were adopted as generative explorations addressing history and context around "research objects". Plus specific aspects of such "objects" to enable the natural emergence of individual viewpoints, shared views, "epistemological cracks", constructing meaning towards generating grounded theory. In this respect, the transcripts were edited to include as much as possible of face-to-face conversations, in a conscious effort to preserve that moment of personal exchange as "the" key reference. The empirical study (Section III, Chapters 6 through 8) is highly integrated with the bibliographic historical and epistemological references (Section I, Chapters 1 through 4), as regulated by a detailed and specified methodology (Chapter 5). A distinction is made at the level of "Conclusions", with empirically based conclusions, also integrating theoretical references (Chapter 9) being presented as separated from reflexive notes of auto ethnographic narrative nature (Chapter 10). Additionally, in order to progressively form empirically grounded answers that would convert by accumulation into an understanding of the PhD "Central Phenomenon", Chapter 6 will work "around" the city.people.light research objects (history, non-related output, ancillary projects where the PhD researcher was or was not involved); Chapter 7 will further articulate an "outside-in" approach, focusing on the "communication" structural moment of articulation of "visions and visualizations" in consolidated editorial structures, for public dissemination and valorization. The analysis will therefore pertain the role of design deliverables, namely books written around a corpus of images (sketches) portraying possible and preferable urban futures, with the underlying unifying topic of city lighting; Chapter 8 will then take an insider view on workshops as specific "practices", dissecting the processes that typically led to research findings in first place. It must be anticipated how it was possible to describe the "books" as concrete objects, based on their material nature. Whereas it is not feasible to do the same for workshops, given their ephemeral nature of events and experiences at a given moment in time. As a result, the description of "workshops", and more in general of "processes", relies to a greater extent on primary interviews (Chapters 6 and 8) and some collateral back-tracing based on documental evidence (Chapter 5). In this overall context, topics such as technological roadmaps, and the alignment thereof, within and around city.people.light programs were a recurring topic.

Multidisciplinary mix, action orientation and multipurpose strategic intent will therefore be repeatedly addressed in a format overarching the entirety of interview questionnaires and their execution. On the basis of a generic framework the experts were verbally stimulated to selectively present and share specific examples, facts and eventually anecdotes or factoids pertaining their direct experience (or indirect awareness) of the city.people.light approach in its entirety. But also at times of isolated elements, modules or parts thereof. According to the personal expertise of each interviewee, different topics were addressed in each dialog, flexibly taking into account the real time flow and the actual quality of execution as key driver. Empirical data analysis constituted a major challenge in terms of their processing and conversion into sizable, meaningful, "thick" fragments first, to be then elaborated towards grounded theoretical development. An

extensive coding process was designed, inspired by multiple methodological sources, comprising steps like Prefigured Coding, Open Coding, Axial Coding, Selective Coding, with transitional "textual posits" being developed through epistemological reflection, like Generative Subcategories, Generative Propositions, Transitional Propositions. The latter should not be regarded as empirical data or "pure" empirical constructs, as they were developed by the PhD researcher to "stand for" empirical materials, towards grounded theory. In this respect, one might re-write the history and the story of this PhD study from the different angle of methodologies, also exercising a critical and reflexive monitoring of the various steps backward. Design changes and suddenly departs towards new synthesis that intensively took place throughout the entire process that led to the empirically-based grounded theory conclusions. In order to provide the best comfort in the further examination of the PhD study chapters, organized and edited according to "thick" strategies, empirical conclusions are herewith foreshadowed and anticipated.

It appears appropriate, for the best comfort of the reader, to anticipate within this introduction the actual outcome of this PhD study, with the purpose to provide a sense of direction through the next chapters. Should this editorial approach not be considered functional to a more efficient and effective navigation of the thesis, it is possible to freely move to the next page, where the editorial structure of this work is being presented. Summarizing the findings of the entire research, maintaining the distinction between "structural moment" (related to design products or deliverables, e.g. books) and "practice-focused moment" (related to processes, e.g. workshops) that will characterize the entire study:

"Within a design-led urban futures generative process, "Design" acts as intellectual partner in a multidisciplinary platform, while "design practices" and a para-scientific, analytical, repeatable tool act as multidisciplinary integrators".

Design as intellectual partner in a multidisciplinary platform

The program is visually attuned to design modalities of representation of the future and offers a relevant liminal space, where it is perceived as individually reflexive for involved stakeholders. The liminal space of the program is enabled by its self-generative flexibility and scalability, with structural moments of communication (e.g., book), which might assume a leadership status as specific design standard within their industry of reference

Design practices and the matrix as multidisciplinary integrators

A "scientific discourse" modality within the program is exercised by means of a para-scientific, analytical, repeatable tool, the urban futures matrix. The matrix is leveraged to in workshops, where sketches are generated, representing concepts, that are managed by designers to generate urban futures storylines. The program is strongly perceived as an "outside-in" performance of collective and participatory nature, with higher intellectual value. External experts (thought leaders) contribute their insights, while concept design workshops engage professional stakeholders, offering them the possibility to lead in creation within teams. Although excluding non-professional stakeholders, the program progressively opens itself to wider circles of participants.

One might notice the presence and use of a specific vocabulary adopted to describe functions and constituencies of "Design" in the context of urban futures. For example, by "multidisciplinary integrator" one might simply identify an agency tasked with blending

and streamlining input from different and diverse sources into one common and shared context. As due in the nature of grounded theory, the above conclusions, including their peculiar vocabulary, will emerge through dedicated chapters from textual analysis and further elaboration of empirical materials, included added theory-based filtering. Further than the Grounded Theoretical Cluster, theming the outcome of empirical research, the role of design in generating urban futures scenarios might be condensed in the 10 answer points to the Key Research Question that will be also introduced in Chapter 9 as part of the "Conclusions":

"How does a design process help to envision (preferable) futures for cities, under postmodern conditions?"

a) by positioning "Design" as intellectual partner in a multidisciplinary platform;
b) by leveraging "Design practices" as multidisciplinary integrators;
c) by enabling the generation of visual representations of the future;
d) by delivering structural moments of communication that convert in leadership;
e) by including para-scientific, analytical, repeatable tools;
f) by enabling the facilitation of workshops for collective visual generation;
g) being specified as externally oriented, with a strong participatory approach;
h) by enabling generative flexibility and scalability over time;
i) by developing along lines of progressive stakeholder inclusion;
j) by adopting teamwork as key operational modality.

The above grounded theory conclusive cluster will be contextualized in Chapter 9 as the theoretical synthesis where the empirical data, as coded and processed, manifest their direct answer to the Key Research Question. The short list will be reviewed in terms of its articulation of the functions of "Design" (the "how" of the Key Research Question), considering such functions referred to a specific postmodern approach to design, namely High Design, specified in Chapter 4 and probed in its urban futures applications throughout the empirical exercise presented in Section III. Gap analysis and reviews, firstly addressing the issue of "what" design would be (not directly included in the focus above) will connect to Section I and provide both foundation and depth to the conclusions. A due reflexive moment addresses instead the paradox created by the aforementioned double role played by the PhD researcher with respect to the "research objects", namely that of "insider" at all times, being fully immersed and in the lead of the conception and production of both the events (workshops) and the books at hand.

Editorial Structure of the PhD Thesis

It must be first and foremost specified that this PhD study is not editorially designed and written with the purpose to enable multiple access points at any time. The linearity of content and insight accumulation requires a progression, reflected by the natural sequencing of chapters and paragraphs that should therefore be experienced as they are positioned, as they are in chronological and logical order. Reiteration of the same text is sometimes offered for the purpose of recall or convenience, however, when applied, it is not done so with the purpose to stand for or replace prior paragraphs or chapters that are always implied in the text. Shifting the focus to an editorial viewpoint, this PhD study will unfold according to the following order of topics:

1) Firstly, in Section I:

   1.1) The bibliographic review will substantiate the first four chapters and provide bibliographic sources about the topics of futures studies, epistemology, design and action research, converging in a preliminary description of High Design;

   1.2) A number of theoretical tensions will be identified in the theoretical field, to constitute the basis for Sensitizing Concepts to be leveraged at the end of the empirical phase;

   1.3) It can be anticipated that specific tensions based on gap areas will be described as follows: a) between humanistic and / versus scientific discourses in future studies, b) between individualistic forecasting and / versus participatory co-creation of visions of the future, and c) between design and / versus social sciences;

2) Section II will then:

   2.1) identify and specify the purpose, the core phenomenon and the strategic intent of this PhD study, as anticipated above articulating them into a concise statement capturing the essence thereof;

   2.2) to then move to the required methodological articulation, based on constructivist grounded theory approach with a critical realist component, manifested in the adoption of case study as an ancillary reference to introduce managerial and organizational practices at Philips;

   2.3) Through Chapter 5, an elaborated pattern will lead towards the epistemological choice for Constructivist Grounded Theory in its later postmodern tradition, influenced by feminism and critical thinking;

3) Section III will:

   3.1) present an elaborated and vast introduction to activate the methodological elements provided in Chapter 5, with an actionable approach towards the specific necessities and the tactic priorities of empirical processing, namely coding;

   3.2) Chapter 6, 7, 8 will be focused on the presentation of quotes, textual materials and codes based on transcripts, according to the order indicated in the above anticipation of methodology;

   3.3) The actual complete overview of deliverables generated in the making of these Chapters will be included in the Appendixes A, B and C, while Appendix D will feature the item list selectively governing interviews. Transcripts would be made available in digital form on request of review committee members;

   3.4) The Cross-Axial Confrontation of empirical coded findings will be performed as final synthesis of Section III, mirroring the same Section III

earlier introduction functional to make the methodologies of Chapter 5 actionable.

4) Section VI will conclusively:

   4.1) present the overview of conclusions based on Grounded Theory, completed by an examination of "Sensitizing Concepts" (Chapter 9) derived from earlier tensions (see Section I) and the reflexive considerations on the "insider's role" and the research project more in general (Chapter 10);

   4.2) Additionally, a specific examination of the role of technology in the larger context of the study will be added, as ancillary justification for the specific position of this topic in the preliminary data analysis, and in the study in general, as paragraph in Chapter 9 building upon preliminary considerations presented in Chapter 5.

Lastly, to complete the overview of the PhD project, the bibliography will be included immediately at the end of Chapter 10, before the Appendixes, in the same Section V, while a concise biographical note on the PhD researcher and a selective list of some of his earlier publications will be featured as "back cover" of the PhD study as editorial product.

Editorial articulation

Besides the above schematic overview, a number of editorial observations might enable a more comfortable navigation of the PhD study ahead, therefore pertaining the textual articulation, the content flow and the styling strategies that organize it. Firstly, it must be noticed how the chapters are sequenced in a circular fashion, from bibliographic review of existing bibliographic sources, to empirical analysis, back to grounded theory. This is because the aim is not to structure a positivistic probing of the field at hand, whereas to first construct a multidisciplinary textured canvas of topics that might deliver a unique foundation to the empirical process. This way the exploratory data, as gathered, selected and treated will be immersed in a prior universe of theoretical lines and nodes, hence performing a task of open but advanced exploration. Such exploration was conducted with the aim of being maximally reflective and reflexive about the "interventionist moment", as any research action within a field will inevitably modify such field: *"…the conscious management of potential "errors" might transform imperfection into improvement, leading to a reframing of problems into opportunities.* (Bevolo, Price, 2006, p.6). Hence the need to document substantial steps of the coding process in separate appendixes, as a compromise to prevent that empirical fragments might clutter the editorial flow and freeze the meaning-making process in islands of granular details. From the conclusions of such data analysis, mirrored into "Sensitizing Concepts" based on earlier theoretical tensions, the Grounded Theoretical Cluster was developed, closing the circle by answering the Key Research Question, not without a due critical review. In this circular sequence, some chapters and parts play a specific function, which might be highlighted here:

a) Chapters 1 through 3, as introduced above, represent the moment of theoretical reflection, historical reconstruction and epistemological dissection of the domains

under probing, namely futures research (combining future studies and foresight) and design;

b) Chapter 4 represents a first moment of transition between theory and empirical research, as it offers a bibliographic rationale and documental description of High Design and its adaptation as city.people.light process, for urban futures purposes, combining various earlier sources and anecdotal recall;

c) The structure of Chapters 1 through 4 is circular, with several recurring topics, from definitions of futures research and design, to sustainability, network theory and multidisciplinary references. Here, the choice was explicitly made to address the topics of "futures research" and "design" as the conceptual "cradles" where the central phenomena will be specified, yet as unspecified in themselves at the moment of starting this PhD. In order to specify them, analytical circles have been sketched, with notions like storytelling, falsifiability, *abduction*, knowledge, action, and more, orbiting within and across the chapters. At each moment, a specific facet of "futures research" and/or "design" is defined or examined, yet without the linear structure of a positivist text. This editorial choice reflects the ambition to construct the field of enquiry step by step, first probing the feasibility of its very existence, to then immerse into its constituencies, from philosophy of science to tools, through epistemology, semiotics and design theory;

d) In order to facilitate and ease the flow of information and the unraveling of analytical lines across Chapters 1 through 4, a number of "ancillary questions" was defined, one per each chapter:

- What are formal roots and a historical genealogy of futures research?
- What are semantics, methods and tools of futures research?
- What is "design" in theory, what might it mean in the urban / futures context?
- What might "High Design" mean as research method for urban futures?

These questions should be intended as focal points, to enable identifying the key topics and angles being articulated in each chapter. <u>They do not have the status of research questions</u>, hence the description as "ancillary";

e) Chapter 5 frames the epistemological and methodological choices that govern the entire PhD and the empirical analysis in particular, including the above anticipated description of the Central Phenomenon and the Key Research Question. Such a framing might conventionally be positioned at an earlier stage in the editorial flow of standard PhD thesis reports. It was editorially designed to be at this relative late stage of the textual sequence because of the choice to firstly enable the emergence of its rationale from an extensive bibliographic review. The same principle applies for key definitions of "Design", allocated to Chapter 4 and not earlier, for the purpose of enabling due reasoning and reflecting on its contextual and historical potential references as presented in Chapter 3. <u>The editorial intent is to reach crucial nodes as/after an accumulation of earlier lines of reflection and knowledge development</u>;

f) Between chapter 5 and chapter 6, a substantial introduction with an important quantity of text will operationalize methodologies into specific procedures. While identifying such introduction as a chapter might superficially seem correct, it was

evaluated to edit it as an editorially neutral introduction because its purpose is purely to tactically translate the epistemological roots of the PhD study into the analytical mechanisms of data; fragmenting, processing, classifying. While the length of the text might appear unconventionally long for just an introduction, its semantic content and specific function justify its editorial attribution as such;

g) Chapters 6, 7, 8 are organized according to a recurring, parallel and equivalent structure, with the flow from the introduction of an umbrella review of the entire body of empirical data at preliminary level, to the actual Selective Coding output, offering the entire spectrum of analytical dissection of the transcript data;

h) As the closing moment of Section III after chapters 6, 7 and 8, Cross-Axial Confrontation and semantic analysis focusing on "Design" as the keyword will thematically enable the extraction of the key empirical findings to be converted into Transitional Propositions, towards the development of Grounded Theory and the answer to the Key Research Question, presented in chapter 9;

i) Chapter 9 and chapter 10 present both conclusions, however chapter 9 will be built on further elaboration of coding, structuring the analytical line through intermediate deliverables, e.g. Transitional Propositions, while chapter 10 will respond to narrative editorial principles as based on auto ethnographic methodological indications;

j) Across the entire PhD study and at each chapter, a "navigator" will offer to the reader a bullet point synthesis of:

- what is to be expected in the chapter
- what are references from earlier chapters that enable understanding the chapter
- what is the position of the chapter in the PhD study overall sequence
- why the chapter is relevant
- what should be expected after the chapter.

Additional "coding navigators" at the opening and closing of Section III will offer orientation in experiencing and rationalizing the various steps of the empirical analysis. Such synthetic editorial accessory was purely devised in order to offer a minimal comfort and ease of use when browsing the text.

It might also be appropriate to anticipate that the editorial organization of the text is based on the priority of constructing theoretical, historical, epistemological, methodological and empirical constituencies. Hence, within this PhD manuscript, "form follows function" where "function" should be interpreted as the academic enterprise to investigate, conceptualize and report a specific field for specialized audiences, and not to appeal, entertain or seduce an audience for communicating self-fulfilling purposes. In this respect, the text is not simplified or made appealing or memorable by means of rhetorical techniques. With nearly two decades of solid production in the applied sciences and extracurricular trade publishing sectors related to design, the PhD researcher might have resorted to such editing and copywriting standard "formulas", however his focus was on the production and organization of a textual document that would remain a possible reference for scholars, academics and intellectuals who have the mindset and the willingness to experience any editorial challenge as an opportunity to appreciate the "thickness" of theoretical thinking or research findings. The choice to

generate a PhD thesis exclusively based on text, without any use of illustrations or other pictorial aid at any time, should be contextualized in this line of thinking, as key relevance is here assigned to the verbal dimension of research, and its manifestation in the written word. There is a further motive that led the PhD researcher to opt for a textual only documentation of his theoretical and empirical efforts, and it has intrinsically to do with the topic of "design" itself. In an age of digital interaction and visual experience, at least within the academic process of PhD promotion in the field of social and behavioral sciences, the PhD researcher intended to reaffirm the power of the written word as such. One might see such precise intellectual strategy as an action/reaction in dialectic opposition to the imperative to reduce all ideas to iconic images or at best, a 30 seconds elevator pitch. Likewise, a precise strategic intent should be associated with the choice of maintaining the formal integrity of both bibliographic quotes, in the theoretical and methodological chapters, as well as empirical data fragments, prior to generative steps in the analytical process. With the awareness that any textual manipulation, be it quoting or coding, implies a re-positioning of the original content in a new context, the PhD researcher aimed as much as possible to let the direct voices of referenced scholars or interviewed experts speak from the page, with their very own words being preserved as much as possible, up to the conversion from Open Codes to Generative Propositions in Chapter 6, 7, 8. Of course, specific editorial design and textual solutions have been adopted to guarantee due mitigation of cluttering by accumulating direct quotes or coding fragments, from the aforementioned Appendixes A, B and C to the formulation of opening ancillary questions at the very start of Chapters 1 through 4, in order to ensure the focus that each theoretical exploration is clear and focalized throughout each chapter.

Scientific value and contribution

The purpose of editorial tactics at the heart of this PhD is to serve the articulation, validation and communication of the output and outcome of an academically structured process, according to postmodern paradigmatic frameworks. In terms of specific linguistic choices and verbal articulation strategies, it must be noted how this PhD study aims at positioning itself in the area of academic production for scientific purposes, in line with what was identified by Diego Marconi as *"Specialist Philosophy"* (Marconi, 2014, pp.12-17), or at least its equivalent specialist footprint in social sciences. Marconi distinguishes between mass oriented cultural production by media-attuned intellectuals, geared towards the taste of educated but generalist audiences, as opposite to "specialized" scientific production, not intended for mass distribution or leisure fruition by the reader, but designed to critically challenge the reader and contribute to specific fields, e.g. in the case of this PhD thesis: epistemology of social sciences, constructivism, futures studies, action research, design theory. The precise assertion of the scientific value and contribution below is therefore not only a due step in terms of PhD protocols and rituals, but also a necessary clarification of purpose, justifying the editorial choices sketched in the above paragraph. From this viewpoint, it is herewith proposed to consider the following three main constituencies of this PhD study:

a) understanding and description of the futures research arena from an (ancillary) epistemological multidisciplinary viewpoint, by selection and simplification within the complexity of philosophy of sciences, where a choice is explicitly made, as PhD foundation, for imagination and engagement over reification and pure speculation;

b) thanks to the grounded theory approach, the natural outcome of the PhD is indeed theory development, with complementary development of reflexive reflections, resulting in a comprehensive attempt to critically systematize, clarify and extend a historical design management applicative approach;

c) ultimately, the entire framework and approach, based on an original "*bricolage method",* was originally extracted by the PhD researcher by carefully selecting epistemological and methodological pre-existing modules, in a newly designed construct, which might be abstracted in its generic working and replicated, for further applications.

Additionally, one might say that within the Grounded Theory approach and its coding procedure, a number of passages were newly devised by the PhD research, including the definition, testing and implementation of generative subcategories (Chapter 6 through 8), Generative Propositions (Chapter 6 through 8) and Transitional Propositions (Chapter 9), therefore contributing to methodological development by bridging and specifying universal methodologies with minor but key purposely designed or specified modules. Because this methodological line will not be further developed within this PhD, for reasons of focus, efficiency and effectiveness, this last argument is only presented as sketched. It should therefore not be considered as part of the full scientific value of the study for present and future formal valorization.

Peculiarities within the PhD Thesis

In conclusion, a few peculiarities might be highlighted, when approaching this PhD study. Firstly, as already indicated in various points of the above introduction, the extension of the PhD runs across various dimensions and constituencies, e.g. epistemological, theoretical, empirical, reflexive, anecdotal, with different narrative and reporting styles, constituting several layers, topics and motives that open the text to the possibility of parallel or recurring lines of interpretation, under different viewpoints. Secondly, the PhD approach aims at being generative in a number of its passages, most notably its conclusions. Some might notice that all conclusions are generative, as they lead to new scientific or cultural enterprises, however the strategies anticipated above and their operational translation in the pages ahead to follow genuinely respond to such generative ambition as an imperative of this PhD thesis. Lastly, the PhD (in its motives and developmental constructions) aims at probing a precise series of semantic and semiotic choices made by the PhD researcher at each given time, describing and challenging a vision where "Design" takes the stage among specific priorities and urgencies in terms of research theory, knowledge management and actionable orientation. Of course, any alternative narrative line might have been adopted to tackle the same challenges, e.g. an organizational studies line investigating the pendulum of ownership and leadership between different business entities within the corporate body where city.people.light was originated, or another line addressing concerns of performance, econometric or financial nature. In this respect, the PhD addresses "Design" as a potential agency for the generation of urban futures in postmodern terms focusing on humanistic hypothesis and creative industry context. With the awareness that the focus adopted by this PhD was socially constructed over time with promotors, contributors and professional stakeholders, during the conception and execution of the study, not by objective steps or natural law, but –at any given point in time- as an act of design.

Eindhoven, 05/03/2016

SECTION I: BIBLIOGRAPHIC REVIEW
FROM SOCIAL SCIENCES AS EPISTEMOLOGICAL CHALLENGE
TO DESIGN AS AN ACTION METHOD

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INTRODUCTION

The object of this first Section I, the bibliographic review of this PhD, is the study of *what lies ahead in time*, beyond the present tense. This field might be scoped as follows, according to a mature, comprehensive definition: *"Futures studies is the systematic study of possible, probable and preferable futures including the worldviews and myths that underlie each future. In the last fifty or so years, the study of the future has moved from predicting the future to mapping alternative futures to shaping desired futures, both at external collective levels and inner individual levels (Masini, 1993; Bell, 1996; Amara, 1981; Sardar, 1999; Inayatullah, 2000; Saul, 2001"* (Inayatullah, 2015, p.2). This definition is efficient and effective because of its completeness, its editorial synthesis and its recent formulation. However, the history of this field of studies is more complex than it might appear. Because of its recent birth, its multidisciplinary nature and its future tense, a number of theoretical tensions and practical opportunities characterize the main domain of this PhD, namely futures research. As a relatively young field of formal enquiry with multidisciplinary roots in the past, futures studies offer the choice to include within their hybrid nature works that exceed and sometimes even deny the formal requirements of (positivist) science and its principles. In this respect: *"…the hierarchy of the sciences expresses not only a logical order of relations but an historical one too"* (Giddens, 1993, p.17). In their practice, at the moment of anticipating the future, futurists formulate their alternatives based on an interpretation leading to hypotheses of future events, leveraging evidence that was produced in the past. From a viewpoint of philosophy of science, this is not fundamentally different than the working of an experiment in a laboratory of chemistry or physics. A key difference however lies in the possibility to repeat the experiment with the same result, as self-evidently governed by laws of nature. Such feasibility of experimental repetition according to standard procedures becomes key as dividing point, although repetition in itself is no guarantee of sufficiency and correctness in itself. Social sciences enjoy a number of positivist-attuned procedures for repeatable (laboratory-like) experimentation, however those do not pertain this PhD study. Unlike positivist sciences, that are governed by natural laws, the possibility to experimentally perform again the forecast under the same conditions and procedure is limited to exceptional events, if existing at all, because from the moment of forecast to the a hypothetical moment of attempted repetition, the context changes (sometimes because of the impact of the self-altering prophecy effect of the forecast itself). Such difficulties are accentuated in long term forecast horizons and in complex social settings, like a city is. In such cases, excluding the hypothesis of fiction by *suspension of disbelief* or of pure speculation, one might speak of predictions with a lower degree of confidence, compared to experimentally falsifiable and repeatable predictions, according to positivist procedures. As a result, one might state that while experimentally based disciplines and studies get consolidated by means of consensus through repetition, the general field of futures research remains more open to -and actually in need of- critical thinking. Compared to historians, who also have to deal with a time displacement, futurists adopt an equivalent approach of linguistic reconstruction: *"…the scenario method shares many similarities with the historical method… Both rely on evidence, both methods draw inferences from that evidence, both methods produce narratives or stories. Both a history and a future scenario are specific ways of using language that share many common properties"* (Staley, 2007, p.2). In essence, both

historians and futurists operate an interpretation in their present time of either past or future events, facts and factoids, based on documents, sources and references. Such interpretation of the past is not fixed, on the contrary it is dynamic because it is contextual, cultural and eminently historical, as much as its departing points of concrete evidence might be considered fixed. A discriminating differentiation is however the fact that futurists have to deal with an additional subjective quality of their hypothesis, namely being referred to artifacts or references that might not exist yet. While a historian will work on the basis of artifacts or experiences that were generated in the time under his examination (with their authenticity that can be experimentally tested and validated by means of scientific procedures), a futurist might have to do without such anchors. For example, a futurist might have to envision the impact of a theoretically possible technology, based on scientific roadmaps, on a society ahead 10 or 25 or 50 years in time, without having any concrete manifestation of how such technology will interact with citizens from aesthetic, sensorial or interface viewpoints. The challenge is then double, in that not only the "time" is displaced (and therefore the context in object can only exist as grounded hypothesis), but also the actual factor supposed to generate change can only be expressed by an analogy or metaphor of what exists at the time of the forecast. This creates the risk to incur in predictive informal fallacies like, for example, the "Malthusian catastrophe". One might think of archeology, only with the additional challenge created by the absence of actual objects, and with the need to factor the possibility of out-of-place artifacts disrupting the linearity of trends. In this specific case, the futurist challenge is to create a fictional image of how the aesthetic, sensorial and experiential manifestation of a theoretically possible technology might be, on the basis of contemporary frameworks and references, projecting the hypothesis of its impact in future society. In order to address this kind of specific challenge, futurists might adopt a critical realist approach, with the benefit to define "posits", validate them, select from a corpus of such "posits" the most robust to develop them into knowledge surrogates. Posits or knowledge surrogates are transitional constructs designed to stand for "future objects", in inevitable absence of the latter. Of course, more scientists and researches adopt critical realism across various disciplines, however it is in futures research it appears to be an operational necessity. It is not an issue of absolute truths or binary falsifiability at play, it is instead a challenge of envisioning what might be possible but remains inevitably undetermined, in order to go from low to higher degree of confidence in the outcome of the forecast.

At a higher level of aggregation, this PhD regards social sciences as interwoven with humanities and natural sciences (Gergen, 2014, p.2), being however challenged, unlike humanities (typically speculative by nature) or natural sciences (typically impacting the world by driving change) to perform a "future-forming" action beyond their observatory, or "ocularcentric" (Gergen, 2014, p.5) tradition. In this context, this study aims at addressing the challenges of understanding how the future might be predicted in social sciences as well as how "Design" in its postmodern view might be leveraged for futures research beyond older and outdated notions like "styling", namely under which conditions, might "Design" be a powerful constituent of "future-making" in our contemporary economies and societies. One might say, that both postmodern design and futures research aim at achieving a simplification of complex contexts.

The first three chapters of the present Section I represent the result of desk research performed on bibliographic sources aimed at providing the methodological foundation to the PhD study by firstly addressing three ancillary research questions, purely provided as focus and reference:

- What are formal and historical roots of futures research?
- What are semantics and examples of methods of futures research?
- What is "design" in theory, what might it mean in the urban / futures context?

The last two chapters 3 and 4 will specifically explore the epistemological and theoretical background of design with the ambition to address the challenge to provide a theoretical, semantic and conceptual framework to understand what "Design" is in the context of urban futures. The two separate and distinct chapters have complementary focus: firstly, "design" will be analyzed with reference to its own semantic and cultural constituencies, in order to provide insights at epistemological and political levels. Chapter 4 will be based on a hybrid foundation of sources, including both bibliographic sources and anecdotal evidence or recall by the PhD researcher, based on his earlier formal role as Design Director at Philips Design, the global service unit of Royal Philips BV, in order to address the ancillary question, purely provided as focus and reference:

- What might "High Design" mean as research method for urban futures?

Theoretical perspectives

In general terms, it might be proposed as working hypothesis, that sociology (including futures research, where the two coincide) has been historically regarded as an *"…observational science", where critical experiments with clear and univocal falsification to prove theories right or wrong appear challenging, if feasible at all"* (Bishop, Hines, 2012, p.118). It might be observed how any scientific knowledge has at its foundation a shared paradigm within a community of practice, enabling productivity and endurance, or falsification, within such shared boundaries (Gergen, 2014, pp.3 – 4): "*With Kuhn (1962), it is to say that once there is a shared paradigm (metaphysical, ontological, and practical), the sciences become productive. Only then can we split atoms, place a man on the moon, or eliminate smallpox. By the same token, it is possible for sociologists to make predictions about population shifts, economists to predict the effects of government policy on economic growth, or psychologists to predict the likelihood of criminal recidivism—all subject to falsification. This argument applies as well to the more interpretively based social sciences. While there may be no ultimate truth testing in hermeneutically informed inquiry, there can be relatively high levels of agreement within circumscribed enclaves about the character of subjective life. By the same token, within circumscribed traditions of understanding, it is possible to test hypotheses, or to write objective history, falsifiable ethnography, and accurate accounts of inter-group hostility." (*Gergen, 2014, pp.3 - 4). From a theoretical perspective, in particular, futures research is an epistemological domain with specific theoretical challenges in terms of its object of investigation: *"…Bertrand de Jouvenel suggested that studying futures was not a question of knowledge and facts at all but one of conjectures: …he likened it to a work of art, in part because it was an expression and a creation of the human mind… the act of studying the futures is a construction within the present which takes place in the richly endowed environment of human minds…"* (Slaughter, 1995, p.29). As more general subdomain of social sciences, futures research might highly benefit however by being critically scrutinized and challenged to evolve from such historical "observational", or "ocularcentric", position: "*Traditional practices of research remain unchallenged; and while there is an impressive accretion in the range of practices, they do little to violate or challenge the basic structure of inquiry. Most important for present purposes, this condition of reflective pragmatism sustains an ocularcentric conception of knowledge*

(Levin, 1993; Kavanagh, 2004). That is, the vast share of these research practices carry with them a dualist premise, distinguishing between the world on the one side and the observer on the other. The process of observation is essentially visual as opposed, for example, to tactile or auditory. Metaphorically, then, the process of research is effectively one of watching, looking, or seeing. As Rorty (1979) and others have characterized the process, the mind of the researcher ideally functions as a mirror of nature. The traditional means of safeguarding research from bias –inter-observer reliability, double-blind methodologies, standardized questions, large samples, and the like—thus function to "cleanse the mirror". In this meta- phorical vein, we may characterize the researcher as a mirror holder". (Gergen, 2014, pp.4 -5). Here, one might position the aforementioned appeal to social scientists in general switch from "mirroring" to "future-making" (Gergen, 2014). In these preliminary perspectives, "futurology" exists on two independent axis of formal extremes:

a) *from objective rationality within scientific systems to creative imagination of its actors and agents;*

b) *from strategic representations of the future to the tactics employed in the actual operationalization of investigations* (De Certeau, 1984, xxiii).

With a), one might describe the shift from positivist linearity to postmodern participation. With b), one might describe the shift from visualization to action and creation. Departing from this first dichotomy, an operational first step might be identified in the urge to *"…challenge the division of labor between professional researcher-theorists and practitioners in the field…"* (Kemmis, in Reason, Bradbury, 2004, p.91), hence democratizing the everyday practice of futures studies and opening it to "action".

Design as future-forming action research

When introducing a semantic analysis of the field of futures research, complemented by appropriate epistemological notes, the focus on "actionable" approaches requires a possible first distinction to be formulated, the one between the scholarly activity of "future studies" and its consulting counterpart of "foresight". Both the more academically-attuned "studies" as well as the business oriented and commercially oriented "foresight" belong to the realm of "strategic thinking", which also requires further dissection, leading to the anticipation of "Design Thinking" as the new paradigm to introduce in the next section. The "futures domain" will be firstly analyzed as a realm of utopian / dystopian storytelling and fictional writing, to then move from its macro-level of theories, concepts, metaphors, images and methods, to then explore its organizational and pragmatic constituencies. This is a specific selective choice, made to seek the "storytelling" roots of futures research from a humanistic viewpoint, in order to connect at later stage with the "humanistic ambitions" of High Design. It should be clearly stated, how it might be possible to sketch a different storyline for the evolution of future studies, e.g. one that focused on logical and empirically-based cause effect analysis, however such alternative line would diverge and ultimately not contribute to the focus of the PhD study. The key distinction is then introduced among possible, probable, plausible and preferable futures, as they will be defined later according to authors like Bishop, Hines or Kuosa, with the clear "mission" of futures researchers to define "alternative futures" in the zone of plausibility around the "baseline" represented by the natural extrapolation from current trends. On these basic principles, Action Research and Action Science are then presented as the theoretical reference to define futures studies and foresight in a

perspective of social innovation and change, leading to the formulation of "Participatory Future Praxis" as the natural next step. This "vocation for action" is again a specific analytical direction, functional to support the best synergy and continuity with High Design. Of course, "social innovation" and the pursuit of change are not by default necessary constituencies of futures research, as this can be articulated also in a speculative fashion. Nevertheless, the heart of this PhD study being a design method to pursue "preferable futures" by impacting reality, this specific focus will efficiently and effectively enable hypothesis between multiple disciplines and domains of different nature, yet converging towards High Design. In order to embody this action oriented vision of futures research, the distinction between "exploratory" forecasts (focused on the analysis of what is possible) and "normative" forecasts (focused on values and goals) is formulated, with the opportunity to identify the latter as the natural setting for visioning processes focused on inclusion and co-creation.

From Storytelling to Marx

Before the provision of specific elements to validate the possibility to study the future according to formal principles, a genealogy is established of how –historically- futures research emerged at intellectual level. In order to do so, fictional storytelling is described, depicting utopias and dystopias of the future in past works of novelists and authors. At the center of centuries of gifted writing, lies the notion of "utopia" and its counterpart, "dystopia", and their relevance in building hypothesis of alternative worlds and different forms of organizing cities, nations and life on the planet, and beyond, in a fascinating yet utmost relevant game of mirrors where the past, the present and the future become mutual references through storytelling. It must be specified that original utopias were originally not placed in the future. They were an outgrowth of 16th century Age of Exploration being situated in hitherto unknown lands. The first utopia set in the future was a function of the Enlightenment's belief in the improvement and perfectibility of people and societies. It was Sebastian Mercier's "*L'An 2440, rêve s'il en fut jamais",* in the 1770s *(feedback note, P. Bishop, received 16.09.2015 by digital transmission, included on 22.09.2015).* As a point of junction between past utopian visions and modern planning, the works of Karl Marx are uniquely positioned for their scientific basis complemented by a powerful "call for action" stimulating social change and action, through the innovative use of the "manifesto" format. The Marxian notion of *"becomingness",* as a symptom of the XIX Century drive to *"establish a natural science of society"* (Giddens, 1993, p.18) in particular, is isolated as peculiarly pivotal in the switch from literary and a-scientific work on potential alternative societies located elsewhere (More, Defoe) or in another time (from the precursor Bellamy to the great visionaries Philip K. Dick and William Gibson, with the sub-genre of philosophical novels like *"Dune"* or *"Solaris",* and with the climax of a science fiction writer like Bruce Sterling, who switched to business consulting) or both (Michel Houellebecq) to formalized methods functional to the definition of a clear direction for future evolution of history, as based on past trends. Examples of connecting foresight explorations to science fiction cannot be accounted within the scope and purposes of this PhD study, e.g. including initiatives like the Global Future 2045 by Russian entrepreneur Dmitry Izkov (De Ridder, 2014, p.18). It is proposed to take as a working hypothesis the potential continuity between fictional scenes, scenarios and sketches as elaborated by novelists and humanists, and potential real applications as future-making reference thereof in further applicative explorations.

The role of reflexivity

As reference for this PhD study, epistemological interpretations of science like critical realism might come to aid, complemented and mitigated by notions like *"abductive inference"* and co-creative world-making, to ultimately substantiate the emergence of a constructivist episteme, however hybrid. A new methodological vocabulary might be needed in order to enable leveraging the critical realist definition of a conceptual reference where a "proper" is firstly identified as "the future", to be populated by "posits", that stand for acceptable objects of scientific investigation. Such operation will result in isolating possible futures in the form of "surrogate knowledge", for further application of formal procedures, where constructionist considerations will ultimately seal the theoretical framework for the investigation of the future. These formal operations require the highest degree of self-awareness and epistemological rigor. In this context, by *"reflexivity",* it is possible to identify a process of professional acknowledgement and theoretical reflection on how research deliverables are *"…affected by the personnel and the process of doing research…"* (Davies, 1999, p.4), extended in the case of futures research to their actual pragmatic impact in the future of the reality in the world: here, *"…the reflexive monitoring of behavior operates against the background of the rationalization of action…"* (Giddens, 1979, p.57). Reflexivity will be the base of an entire conclusive chapter, aimed at presenting the peculiar condition of the PhD researcher, researching a field and objects where he played an active leadership role for the last two decades. Of course, it would be a rather narrow turn if reflexivity only had such role in this PhD project. As a matter of a fact, a reflexive posture, if not intent, can be pervasively identified in a number of critical points across the manuscript. For example, within this Section I, reflexivity will be an important constituent of Chapter 4, where personal recall will integrate extant documental evidence from public and archive sources. Complementarily, the first two chapters, 1 and 2, of this PhD study within this section will explore on pure bibliographic basis, how futures studies are both the epistemic space of a reflexive, multidisciplinary scientific "proper" with a humanist orientation, as well as the imaginative platform where tomorrow's utopias can be envisioned and triggered by all social actors, not exclusively by "scholars" or "experts", thanks to their human faculty of (sociological) imagination.

The design theory chapters

In Chapters 3 and 4, the role of designers in the context of human enterprise will firstly be reviewed according to theoretical principles from bibliographic sources, hence with the objective to identify a number of deepest meanings of "design" as a cultural discourse and as a professional practice, from generic to urban context. Within this Chapter 3, focusing on more theoretical aspects of design, the connection between social sciences and the visual will be analyzed. This will be a starting point, in continuity with the first two chapters above, leading to the necessary analysis of the economic context of design, both from viewpoint of market dynamics as well as production processes, as seen in historical perspective. By inter-locking the terms "design" / "designer" in their respective chains of semantic proximity and differentiation with the nouns "science / scientist" and "fine arts / artist", the footprint where "design / designer" establishes its unique meaning will be semantically defined, by differentiation. Further than semiotics, it will be the actual political and ethic dimensions of design and architectural practice, here closely associated, to be reviewed, in order to formulate advanced hypothesis of how a new vision of this professional field can be defined by expanding it to include "everyday practices". If the first chapter 3 will keep topics of

futures research in the context as a background, in the next chapter 4 “design” will be “backward engineered” as operational approach and project praxis to envision urban futures. The editorial perspective will therefore shift into an applicative description of how “design” can be structured in a generative process to connect research to output, to then sketch a methodology to generate urban futures, according to formal sources (including the “research objects” of this PhD, however here adopted for their bibliographic evidence) and theoretical reflections, complemented by reflexive references. This foundation will then require research probing in the next section, based on actual empirical data, in next chapters 6, 7 and 8. In such moment of this Section I, in Chapter 4, “design” will be finally re-defined as a socio-cultural collective practice and as a creative “agency”, and then investigated from the viewpoint of its operational processes and ways of working, from individual leading architects to the networking constellations that conceptually embody the field in terms of connections and programming. A specific notion of “Design” will be distilled, with the ambition to theoretically connect informal practices of everyday networks with the necessary performance parameters for organizational success in contemporary business environments. From this latter starting point, in continuity with Chapter 2, an actionable co-creative approach to leverage Design Thinking as futures research method will be assembled from hybrid sources, combining networking assets and capabilities with foresight methods and tools (e.g., qualitative data gathering, futures workshop, futures matrix) in an existing proprietary process. The continuum constituted by the two chapters in sequence, 3 and 4, is articulated -from a perspective of analysis- in terms of a progression from the “purely theoretical reflection” on “design” to the operationalization offered by contextualizing a professional, formalized practice, namely High Design at Philips, on the hybrid basis of bibliographic sources and anecdotal evidence as recalled by the PhD researcher, on the basis of his former corporate / consulting role. It might be noticed how the selection of referenced authors is relatively limited, as mostly Bell, Slaughter, Kuosa, Jungq, Bishop, Hines, Fry, Flusser, Munari, Marzano and earlier publications by the PhD researcher himself were leveraged in the formation of the corpus of sources. This is a consequence of the peculiar requirement, already presented in the general introduction, by which a specific focus is adopted for this PhD study, one contributing by selection and dissection to the contextual and deeper understanding of the Central Phenomenon, and of High Design as an example of postmodern design approach. The references will be hybrid, across futures research, design theory and social sciences, with the purpose to cross-fertilize different and diverse fields of expertise. The focus in terms of design practices is itself hybrid, as the main concern of the PhD author is to present general arguments of reflection while keeping the city and its futures as the priority in terms of applicative domain.

SECTION I: BIBLIOGRAPHIC REVIEW
FROM SOCIAL SCIENCES AS EPISTEMOLOGICAL CHALLENGE
TO DESIGN AS AN ACTION METHOD

CHAPTER 1
FUTURES STUDIES: AN EPISTEMOLOGICAL CHALLENGE

Ancillary Question:
What are formal and historical roots of futures research?

NAVIGATOR

- to be expected in chapter 1:
  historical and formal basis of futures research, with an introduction to *abduction*, critical realism and Action Research.

- references from earlier chapters that enable understanding of the chapter:
  none.

- position / role of the chapter in the PhD study overall sequence:
  foundational / theoretical, with focus on the epistemology of futures research.

- why the chapter is relevant:
  providing key definitions of futures research and creating key epistemological connections across social sciences, humanities, future studies.

- to be expected after this chapter:
  specification of futures research epistemology, methods and applicative tools.

INTRODUCTION

This first chapter focuses on the challenge of studying the future within formal frameworks and methods of social science with validity from different viewpoints; philosophy of science, epistemology and semiotics. In order to establish a deeper level of theoretical reference, based on bibliographic review, an articulation of the unified, yet multidisciplinary, "science of futures studies" firstly requires the clarification of the underlying concept of "time". The notion of "time" will therefore be the starting point to analyze predictive capabilities and theories of the future. As the ambition to predict what will come next is rooted in the way time itself is perceived by people, and in the narratives that humans require to make sense of the present and the past, with an eye on what will come next. It might actually be noted how *"…social theory must acknowledge… time-space intersections as essentially involved in all social existence…"* (Giddens, 1979, p.54). This is not a one-sided notion of "time" as progression as the positivist tradition of scientific thinking might dictate; on the contrary. The *"social construction of reality"* (Berger, Luckmann, 1966, Trad.It.1969, p.39) requires both a sense of direction into expected futures as well as the interpretation of the past. The "present" and its meaning-making or even *"world-making"* (Fischer, 2001) is *"…a constant negotiation of these two temporal dimensions, in full continuity…"* (Slaughter, 1995, p.124). Major efforts have been invested in recent decades to expand the context of past human history (Slaughter, 1995, p.83), with the formulation of holistically

integrative disciplines at academic level such as *"Big History"* (Spier, 2010, pp.2–3). Within *"Big History",* the context and the time of the human existence are expanded to include the study of the matter, the cosmos and the millennia before us. Concerning "time" itself and its human perception through senses and experiences, it might be noticed how the urban context provides a field of experimentation and speculation. At least, since Walter Benjamin's conceptualization of *"urban wandering"* (Sontag, 1972, Tr. It. 1982, p.91) and through the psycho-geographical interpretations of DeCerteau's *"walking practices"* in New York. The city offered triggering points of reflection on the nature of time and its consumption through the experience in context. This might be seen as a reaction and/or an evolution to the modernist/modern manageable micro-units of "industrial time" dictated by the processes of productive integration of the *"…industrial revolution, defining time on the basis of the omnipresent clock"* (Castells, 2010, xl). Reaching an even higher degree of fragmentation and fluidity, contemporary digital networks led to the conceptualization of *"…timeless time…", as the most advanced structure, expressing power in the global network society* (Castells, 2010, xli, xlii). The infinitesimal measurability and multilateral liquidity of *"timeless time"*, as identified by Castells, might coincide with the preponderance of reified quantification in (social) sciences. Both re-assert the "ideological fallacy" of imposing numeric standards and predictive precision on an otherwise organic, unthinkable "life" (Slaughter, 1995, p.53). Within this notion of social sciences (sociology, in primis but also anthropology), futures research is an "agency" bound to fit within the formal systems of academic classification. In order to pursue their investigation along a specific directional vector in time itself, focusing on an "object" that does not exist as a concrete object yet; the future. Even before the birth of social sciences as such, the future has been the object of literary speculations and philosophical investigations for several centuries already, even Millennia, and it is this humanistic thesaurus of future visions that constitutes the starting point of our journey.

1.1) GENESIS OF FUTURES THINKING

A commonality among social scientist, sociologists and humanities scholars in futures studies is the strong belief in a "creative faculty" of humankind (Slaughter, 1995, p.75). Be it classified as "sociological imagination" or artistic creativity tout court, this is the one agency that generates human futures. Through human history in the last Centuries, such "agency" was often leveraged to engage in a search for utopia (Jacobsen, Tester, in: Jacobsen, Tester, Eds. 2012, p.2-3). "Utopia" can be defined both as the ideal condition of human living in yet another place and/or another time. Its meaning can be extended to represent the *"inexhaustible human urge and craving for an indefinable something not existing yet… territorially embedded and geographically distinguishable on a map of the world"* (Jacobsen, in: Jacobsen, Tester, Eds. 2012, pp.70-71). The notion of "utopia" implies the parallel notion of "change", as *"utopianism"* results in a tension between the current circumstances and an ideal end state where such circumstances might be improved through action by design. An example thereof is "socialism", as defined by Zygmunt Bauman with the formula *"active utopia"* (Jacobsen, in: Jacobsen, Tester, Eds. 2012, pp.71-72). The structure and the purposes of utopian thinking led it to be mostly secluded from the domain and the discourses of social sciences (Jacobsen, in: Jacobsen, Tester, Eds. 2012, p.71) under the suspicion of representing *"…wishful thinking…"* (Jacobsen, Tester, in: Jacobsen, Tester, Eds. 2012, p.3). Utopian thinking itself however seemingly enjoys a renaissance since the start of the current crisis of globalized capitalism (Jacobsen, Tester, in: Jacobsen, Tester, Eds. 2012, p.2). Based on

the above starting points, it is selectively proposed to trace back a re-constructed genealogy of utopian visioning. Paralleling and partially overlapping with a genealogy of futures studies, within the field of literature and humanities, hence it will tap into the historical tradition of authors who concerned themselves in the last centuries with descriptions of the future.

A first (reflexive) insight (justifying such hybrid inclusion of non-scientific narratives) identifies sociological research with the *"…interactive production of a narrative"* (Melucci, 1998, p.305). As in fictional storytelling, research can (reflexively) be described as a non-neutral relationship where narration flows from narrator to researcher (who will be the interpreter of the story according to the research frameworks and protocols). Research therefore happens within the context of a network of mental links with memories and perceptions within the mind of the narrator himself (Melucci, 1998, p.305). Therefore, it might be assumed, at least at the level of working hypothesis, that storytelling as an approach might be as valuable to futures studies, as any positivist methods of formalized research procedure (Bevolo, 2009, pp.18–19). In this respect, it should be noted that: *"The methods of social science are akin to literary criticism, deciphering codes and translating languages"* (Jacobsen et al., Eds, 2013, p.6). Furthermore, V.J. Janesick (2000, 2010) reaches an extreme point of exploration, comparing the process of defining qualitative research projects to the art of dance in the tradition of Martha Graham, Merce Cunningham and Alvin Ailey (Denzin, Lincoln, 2013, p.47). In this respect, one can identify a major danger for the validity of reporting format chosen by any social researcher but also speak of a context of multiple, if not endless, opportunities. In the postmodern paradigm, scientific communication is potentially expanded in its editorial opportunities by before unforeseen synergies with the worlds of liberal arts - and even the free form of creativity. Expressions like *"poetics for sociology" (Brown, 1977),* sociology as an *"art form" (Nisbet, 1976/2002), "passionate sociology" (Game and Meatcalf, 1996), "anti-methods" (Roderick et, 2000), "arts based research" (Barone and Eisner, 2012), "creative factors in research" (Portefield, 1941), "sociology through stories" (Schoepflin, 2013), "poetic imagination" (Antoft, Jacobsen and Knudsen, 2010), "artistic approaches" (Eisner 1981) or "anarchist methods" (Feyerabend, 1975).* Or what we collectively characterize as *"imaginative methodologies"* might give the impression that we are dealing… *"with utterly unscientific, speculative or pseudoscientific endeavor… However, dealing creatively, poetically and indeed imaginatively with methodology is not equivalent to mere playfulness or the abandoning of conventional criteria for social research* (Jacobsen et al., Eds, 2013, p.11). The same applies to other humanistic and qualitative fields, like history: *"…the 'linguistic turn'.* This refers to the historiographic concern among many philosophers of history about the nature of representation in history, and especially the role of language in representing the past. *'History like poetry and song', according to the philosopher Michael Stanford, 'is a way of language'* (Staley, 2007, p.2). Because "History" is fashioned in language, the philosopher F.R.Ankersmit has argued that any historical representation is a substitute for, rather than an exact copy of, the past. The past is no longer in existence, therefore the historian must create a (textual) object that can stand in its place (Staley, 2007, p.2). A parallel between the study of the past (history) and the study of the future was already established in the above introduction.

In light of the above and one step further, but in apparent continuity, it might be possible to identify seeds of futures research in what is actually fully identified as narrative fiction. It is plausible to identify the very first precursors of modern and contemporary utopian writing in Ancient Greece, describing fictional or parallel realities, namely Plato's

"Republic" (Bell, 1997 – 2003, Vol. II, p.16) or in Aristophane's theatre (Bell, 1997 – 2003, Vol. II, p.17) with different purposes and with sometimes opposite rhetorical means. Both Greek authors engage with the description of ideal cities, or places where human affairs are organized in an alternative fashion. The turning point for this literary genre, although not the first point of departure towards its possible emancipation from sole fictional or speculative purposes, is Thomas More's 1516 *"Utopia"* (Cornish, 2004, p.170). This book complements a critique on the state of affairs in its contemporary days, with the visionary storytelling of an imaginary (yet vividly described in fine details), city located in the remote Americas. In literary terms, More established the foundation of a whole new genre and format, leading to contemporary science fiction. Besides the literary, philosophical or political science related relevance of *"Utopia"* it must be highlighted how More's work might be read as a descriptive precursor of social sciences (sociology, anthropology, simulation of field work) although, describing a spatial displacement instead of a temporal one. Current techniques adopted in futures studies (scenario writing) might be seen as an evolution of the specific narrative mechanisms and systematic descriptive framework that More adopts (Bell, 1997 – 2003, Vol. II, 9 – 10). Further literary examples of alternative worlds built around specific socio-cultural values one can mention Daniel Defoe's 1719 *"The Life and Strange Surprising Adventures of Robinson Crusoe of York, Mariner"* (Bell, 1997 – 2003, Vol. II, p.19) and the "unconceivable" dystopias represented within the oeuvre of Sade (Bell, 1997 – 2003, Vol. II, pp.29–32). Once again on the basis of a spatially displaced alternative but parallel reality, Defoe's hero is a "self-made business man" who builds his own utopian world on the basis of capitalist values, with formal reference to God but without the same grounding religiousness of Thomas More (Bell, 1997 – 2003, Vol. II, pp.20-21). Crusoe's rational approach to planning and management envisions the essence of industrial values, with a dynamic focus on material aspects of life and their meaning as symbol of success (Bell, 1997 – 2003, Vol. II, pp.22-23). A positive and positivist confidence in science as an organizing framework for the emergence of new utopian societies was maintained through the XIX Century by popular authors like Edward Bellamy in his speculative 1888 *"Looking Backwards"* – at the crossroads of science fiction and popular cultural. This book popularized the future as a topic of interest within the US society (Lombardo, 2008, pp.16–17). De facto, contributing to the diffusion within the US public opinion of future thinking, which proved also politically relevant for the progress of this field in the decades to come.

If More and Defoe were among the first thinkers and writers to concern themselves with the description of an ideal world existing "somewhere else", the XX Century saw the birth of a whole genre devoted to the "making" of fictional worlds "ahead of us", or displaced in time. Truly remarkable from the point of view of its impact on futures studies from the literary fiction domain, is the work of authors specialized in the genre of science fiction. Which have might be assessed as extremely relevant to futures studies in terms of the generated *"what if"* scenarios, with speculative interest on social, cultural and technological evolutions of the world (Slaughter, 1995, p.36): *"Science Fiction" is a term coined in 1929 by author Hugo Gernsback and it was delimited within Erk's definition: "Fiction based on imagined future scientific or technological advances and major social or environmental changes"* (Fortin, 2011, p.16). Polish writer, Stanislaw Lem, specified further: *"It is the premise of science fiction that anything shown shall in principle be interpenetrable empirically and rationally. In science fiction there can be no inexplicable marvels, no transcendences, no devils or demons – and the pattern of occurrences must be very similar"* (Fortin, 2011, p.17). In the same line of thinking, Philip K. Dick identifies the genre as going beyond *"a story (or novel or play) set in the future… There must be a*

coherent idea involved in this dislocation; that is, the dislocation must be a conceptual one… this is the essence of science fiction, the conceptual dislocation within the society so that as a result a new society is generated in the author's mind, transferred to paper, and from paper it occurs as a convulsive shock in the reader's mind, the shock of dysrecognition" (Fortin, 2011, p.18). Science fiction appears as a hybrid genre, where more traits converge from different sources, leading to a unique mix of narrative entertainment and creative anticipation, constantly stretching its boundaries, from author to author, towards philosophical reflections, popular images, "…*transcendental urges"* (Fortin, 2011, p.20). Furthermore, through the decades of the second half of the last Century, science fiction was chosen as their "genre" by "philosophical" authors such as; Frank Herbert with his 1965 *"Dune"* generated novels based on social analysis and future intuitions anticipating. In this specific case, for example, topics like ecology and *"…the emerging emphasis on context for architectural design at that time"* (Fortin, 2012, p.66). Of course, a future tense and an exploration into utopias and dystopias of a time to come are topics that can be treated by any author. Depending on his or her talent, the outcome might be outstanding, as seen in just one example, Houellebecq's visionary convergence of sociological imagination and narrative talent in his future focused novel *"The Possibility of an Island"* (Petersen, A., Jacobsen, M.H., in Jacobsen, Tester, in: Jacobsen, Tester, Eds. 2012, pp.105-107). The predictive power of science fiction as a specific genre, however, seems to further emerge with a selection of its more prominent writers. From Isaac Asimov's three laws of robotics (Slaughter, 1995, p.84) to Philip K. Dick's novels and short stories transferred to the wide acclaim of cinematic audiences, including Steven Spielberg's 1980's *"Blade Runner"* and 2002's *"Minority Report"* (Fortin, 2011, pp.142 -143). The impact of Philip K. Dick's imaginative visions of the future on the collective imaginary as mediated by Hollywood blockbuster productions is huge in quantity and quality. Likewise, it is a valid reference to mention the visioning efforts of William Gibson, as Gibson was the first who coined the term "cyberpunk". Merging (antagonist) lifestyle with high tech practices before personal computing and mobile communication devices were introduced to the masses or even to early adopters. In his 2003 *"Pattern Recognition"*, first installment of a "near future trilogy" also including 2007 *"Spook Country"* and 2010 *"Zero History",* Gibson actually applies science fiction principles to the narration of his contemporaneity. However, since the plot of *"Pattern Recognition"* is set in 2002, within this context the 2001 attacks to the US did not happen. What makes the novel prominent in terms of relevance for futures studies is the fact that its protagonist is a professional trend-watcher working in consulting mode for global corporations. This gives the reader the opportunity to discover the "pop side" of futures studies (Slaughter, 2004, p.90) and its commercial consulting applications in fine details. In all of the above cases, the outcome of literature has been an impact on the cultural imaginary, however never a major change in social arenas as a direct result. Hence future reflections in this genre might be described as largely speculative. A fellow writer and sometimes co-author of Gibson, Bruce Sterling, actually made the step to supplement his work as novelist and fictional author with visionary essays on design and future developments around the creative industry and lifestyles. Sterling generated an important quantity and quality of manifestos, lectures and consulting activities (Bevolo, Brand, 2003, pp.38–39), hence the shift from speculation to commercial application, which is the main line of business of most futurologists and consultants concerning the future.

1.1.1) Marxism and "becomingness": birth of a scientific utopia?

Crossing the boundary from speculation into action and achieving change in society:

from mirroring futures to making futures happen. How? In this respect, the work of Karl Marx holds a different position than speculative fiction because of its original claim of holding a *"scientific competence"* in envisioning the future (Bell, 1997 – 2003, Vol. II, p.47). In particular, *"Marx can be categorized… as previsaging and seeking to bring into being, a science of society which would reproduce, in the study of human social life, the same kind of… explanatory power already yielded up by the sciences of nature"* (Giddens, 1993, p.18). Furthermore, Marx enjoys an additional non-fictional trait, namely the "call for action" for people to pursue the envisioned values and contribute to change towards the preferable world as depicted in writing (Bell, 1997 – 2003, Vol. II, p.8). Here, Marx designed one of the most powerful tools to convert his values into action. Namely the "manifesto" of communism that, in its own right as a "format" represented a turning point both in history as well as in mass communication strategy (Bevolo, 2009, p.76). Ideologically, Marxism developed in relative continuity with the thinking of Jean Jacques Rousseau, for whom inequality was the source of evil (Bell, 1997 – 2003, Vol II, p.28). Also, those who can be defined as Utopian Socialist writers and social scientists such as; Saint, Simon and Owen (Bell, 1997 – 2003, p.38), whose ideas were piloted and practiced in real life alternative *"…planned communities, garden cities and even some communes"* in the US, in France and in the rest of Europe (Bell, 1997 – 2003, p.43). Marx therefore adopted a scientific approach (modeled on 1800's positivism) in his elaboration of historical trends and future projections. The combination of theory, data collecting and analysis –in spite of elements of Romanticism resulted in the label "scientific socialism" on his work (Bell, 1997 – 2003, p.58): *…central in Marx is the ability to merge tomorrow's "utopias" with today's context in a synthesis of "becomingness"…* (Bell, 1997 – 2003, p.58). From this perspective, the dynamics of future evolution are intrinsic in Marx's vision of history: "…*capitalism contains the seed of communism"* (Bell, 1997 – 2003, p.58). It must be specified that such an approach presents the risk of forecasting the future according to "what ought to be", hence opening the door to the aforementioned suspicion of "wishful thinking", "…*in spite of the empirical evidence based on scientific theory elaborated as support to the Marxist analysis"* (Bell, 1997 – 2003, pp.58–59). Evidently, these dynamics can also be sociologically described as "self-fulfilling prophecy", namely the creation of alternative future "utopias" aimed at triggering social action and in achieving social change. Marxism stands for its scientific ambitions –at least in terms of Marx's desiderata, and for its peculiarity in connecting empirical analysis with socio-political change. Furthermore, superior storytelling represents a strong, recurring trait of Marxism. Marxist utopias -including contemporary elaborations by their most recent supporter and developer in the new Millennium, such as Slavoj Zizek's radical thinking (De Berg, in: Jacobsen, Tester, in: Jacobsen, Tester, Eds. 2012, pp.21- 23)- have been systematically analyzed as dystopias by more scholars and authors with other political views. Conversely, the legacy of Marxism, of its communist Manifesto and all derivative works maintains a strong actionable appeal in terms of speculative analysis and narrative power. Between the classic fictional and philosophical writers of speculative utopian worlds and the contemporary formalized approaches of futures research, a last historical reference is owed to French visionary thinker and foresight precursor, De Condorcet.

1.2) HISTORICAL ROOTS OF FORESIGHT AND PLANNING

The utopian and dystopian speculative visionaries, not excluding Marx, crucially contributed to the formation of images and imaginaries of futures research. However, the first systematic framework to suppose futures studies as scientific practice can be traced

back to the time of the French Revolution. Not earlier and not before, and its credits are with an enlightened aristocrat who lived and died in the course of such French Revolution, hence before Marx; the Marquis de Condorcet (Lombardo, 2008, p.116). Written as the blueprint for a much more systematic, larger work that the Marquis did not manage to complete because of his premature death, *"A sketch for a Historical Picture of the Progress of the Human Mind"* was published in 1795 after its author passed away. This essay, in the form of a notebook, was triggered by the political developments leading to the independence of the American colonies from the UK (Cornish, 2004, p.174). It provides the connecting link between philosophy and futures studies as it converts utopian thinking into a systematic enquiry of the future. It came with a surprising array of methodologies leading to deep insights about the world to come for decades. In the *"Sketch",* an ideal bridge between the narrative but speculative power of More or Defoe and the scientific socialism of Marx is conceptually created (Bell, 1997 – 2003, Vol. II, p, 33). Condorcet managed to perform a number of accurate anticipations by applying statistical methods within a mathematical vision of a deterministic proto-sociology, with focus on the interdependency of freedom and knowledge over time as basis for trend extrapolation and the scanning of expert opinions, (Bell, 1997 – 2003, Vol. II, p.34). Most importantly, although he wrote his essay after Mercier's *"L'An 2440"* (see Introduction to this Section I, Paragraph above: *"From Storytelling to Marx"*), Condorcet is universally acknowledged as the author who switched the notion of "utopia" from another "place", geographically distant, to another "time", the future ahead, and from fictional narrative to proto-scientific analysis, by merging values with facts through methods (Bell, 1997 – 2003, Vol. II, p.38). Hence, establishing the first corpus of futures studies where surprisingly accurate predictions did complement processes for repeatable analysis. From this point of departure, socialist utopians created a humanist vision that was put into action and Marxism delivered the scientific promise of a future utopian evolution of society towards its next historical stage. At the same time, after Condorcet's *"Sketch"*, it has been possible to start speaking of futures studies as scholars frame the field theoretically today. Of course, the gap between the last philosopher of the "ancient days" and the contemporary scientific specialists and business consultants on futures still requires to be filled by specifically introducing the recent origins of futures studies and foresight consulting.

Any humanistic, participatory, qualitative approach to foresight was to remain unseen in the context of futures thinking, at least until the early 1950's. A time when US proto-futurists were instead engaged with the massive planning of military, economic and social progress to address the challenges that emerged from World War II. At the same time, the principles of planning were structural in dictatorships like the socialist Soviet Union, which based their entire system to the visioning and executing of "five years" plans. Also, in Fascist Italy and National Socialist Germany, where *"…the basic fascist tenet, the supremacy of the technical expert over the politician, foreshadowed a main feature of the societies many futurists were later to envision developing near the end of the 20th Century: the preeminence of the professional and technical class, and a technology focused on information and knowledge"* (Einaudi, 1968, quoted in: Bell, 1997 2003, Vol. I, p.15). After World War II planning became endemically present in the creation and management of national policies of democratic nations, with countries such as; Norway, The Netherlands and France, that by 1946, started following related directions as already set in the UK during the conflict (Bell, 1997 – 2003, Vol. I, p.19). It is in the American context that the most relevant development in terms of contributing to the evolution of futures research came evolving from military strategic asset to civilian applications: "…*in 1945, Douglas Aircraft Company and Army Air Force, later U.S. Air*

Force, joint forces in the project RAND (Research And Development): this was to be accounted as one of the first futurist think tanks in contemporary history" (Dickson, quoted in: Bell, 1997– 2003, Vol. I, p.29). Under the charismatic leadership of Hermann Kahn the analysts at RAND became the authors of scenarios written as "very serious fiction", as their work constituted a core element in the insights and strategic developments in critical matters of national security (Cornish, 2004, pp.93–94). *"Civilian extensions accounted for 35% of the available capacity of RAND, renamed Hudson Institute by 1970, with key areas of investigation in healthcare, urban planning and applied computing for global climate change simulations"* (Bell, 1997–2003, Vol. I, pp.29 - 30). RAND operations leveraged a holistic approach, with interdisciplinary teams of researchers working from different perspectives with common challenges as their assignments, systematically building abstract models of the systems being analyzed (Ackoff, quoted in: Bell, 1997–2003, Vol. I, p.30). For example, it was at RAND that the Delphi Method was developed and consolidated (Cornish, 2004, p.196): *"A Delphi is a very specific method of collecting individuals' estimates of future possibilities. It is not a general approach for generating new information like an unstructured interview would"* (Skype communication with Dr. Bishop, early 2016 - ref. next Chapter 2). In order to enable their performance, RAND researchers created new methods and tools, de facto functioning as "the university" for futurists. Even for those who reacted to its practices by rejecting such approach this became an accepted standard in the field (Bell, 1997 – 2003, Vol. I, p.30). In parallel, in Europe the practice and the reflection on futures studies, a field anticipated by the likes of Mercier, Condorcet and Marx, were developed by the likes of Junck (see below, Paragraph: "1.4 A "PROPER" PLACE FOR FUTURES RESEARCH") or Polak (see below, Paragraph: 2.2 TOWARDS A FUTURES ACTION SCIENCE?), focusing on different features than RAND did, e.g. the dynamics of participation or the power of visualization. Several programs and projects led to consulting practices and academic validation, as performed in the US in the 1950's/1960's. These activities were complementary to European cases of public enterprises for national planning at governmental / administrative level. From this moment, it has been possible to speak of a formalized field of "foresight" (Bishop, Hines, 2012, xv), with precise consulting purposes and with specific epistemological characteristics. In the view of all above, futures research might be described as an eminently political and organizational activity, contributing to the shaping of society according to a strong ideological bias. Such political dimension of futures research can also be deduced by the contemporary proximity of a number of post-WWII practitioners with the applicative realms of Action Science and Action Research, which will be defined at a later stage of this Chapter 1 as a participatory approach to research within communities and movements.

1.3) STRUCTURING A SPACE OF FUTURES STUDIES

Futures studies, foresight and visioning belong to the general semantic field of strategy because they enable the anticipation and planning of what is yet to come. From a semantic viewpoint, the word *"strategic"* is first of all embedded in the military tradition of structuring resources and determining priorities in the context of war combat, with the objective to achieve victory (Kuosa, 2012, p.45). At an early operational level, it is possible to identify four stages of paradigmatic evolution of the domain of formalized strategic thinking where futures research and its consulting extensions belong (Kuosa, 2012, p.16):

a) *prediction thinking (1940's, based on the military priorities of WWII)*
b) *management thinking (1960's, based on rational articulations and knowledge);*
c) *systemic thinking (1960's, based on information sciences and statistic modeling);*
d) *dialogic thinking (1980's, based on design images, with counterintuitive approaches)*

(adapted from: Kuosa, 2012, p.16).

At a deeper analytical level, a *"strategy"* is conceptualized as "…*the calculus of force-relationships which becomes possible when a subject of will and power (a city, an enterprise, a scientific institution)…"* can be isolated from an "environment", "…*by assuming a place that can be circumscribed as "proper" and thus serve as the basis for generating relations with the exterior distinct from it…"* (DeCerteau, 1984, xix). In other words, the existence of a strategy requires as conditions; a) relative isolation in a given contextual space and b) subsequent identification as a distinctive entity. These are the necessary bases for any subject to be perceived as a "proper". The "proper" will then relate to its context and a "Strategy" will be the "calculus" of the geometries of power within such relationships. The consolidation of a strategy in spatial terms within an environment enables its extension in time. This through the production of "habitus", defined as: *"Systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles of the generation and structuring of practices and representations which can be regulated"* (Bourdieu, 1972, 1977, p.72). The practices generated within the context of such "habitus" will always tend to (strategically) *"…reproduce the objective structures of which they are the product…"* (Bourdieu, 1972, 1977, p.72).

Shifting from spatial theory to philosophy of science, this might be seen as equivalent to the notion of research as mirroring its field of study, as articulated by Gergen: "*At the outset, the very agreements essential to moving forward with a research endeavor are, in effect, ontologically and culturally preserving. That is, they sustain existing traditions of indexing the world along with the forms of life in which they are embedded... To illuminate, reflect, or understand a given state of affairs, sustains a tradition in which this "state of affairs" has acquired ontological status. Or, one might say, in conducting research on what exists, we lend inertia to conventional forms of life. We do not readily ask about what does not yet exist, or about ways of life that could be created. In effect, the mirroring tradition of research favors the maintenance of the status quo. These same limits to the imagination also interfere with the researcher's understanding of research consequences. Here my concern is with the enlightenment or looping effects of inquiry on the society at large… As researchers concretize a given reality—along with concomitant values and forms of action— they are ill prepared to explore or appreciate points of view that challenge the Ontology…"* (Gergen, 2014, p.7). Here, social sciences define their "proper" and express conservative strategies, through their "habitus". At more general level, it might be appropriate to consider how the scientific and technological discourses might dominate the "habitus" dimension of modernist and postmodern societies: *"The 'social' has been absorbed into the 'scientific'. It follows, therefore, that those other aspects of social transformation that appear initially to have owed less to scientific and technical change, even if subsequently they have helped to shape Latour's culture of research, must be regarded as inherently less significant. As a result, changes in the affective and aesthetic domains, so dominant in our definition of modernity, have rarely been given prominence in analyses of the changing science-society relationship – except, perhaps, to be dismissed as irritating interruptions of*

irrationality" (Nowotny, Scott, Gibbons, 2001, p.3). Hence, as also indicated by this detour through Latour, in order to identify alternative outcomes for the future, it might be paradoxically more fertile at strategic level to explore options outside such "habitus". Namely, by searching for potential diversity in the less structured realm of "tactics", where *"affective and aesthetic"* constituencies of modern and postmodern life might be found. There, "futures discourses", linking individual intuitions to methodologies and tools might exist. Such existence is an enabling necessity for futures research and foresight consulting (Slaughter, 1995, p.124) given the nature of its "object".

At the opposite end of the strategic spectrum and of the spatial scope of the "habitus", "*a "tactic" is a calculus which cannot count on a "proper" (a spatial or institutional localization)… the place of a tactic belongs to the "other", as a tactic insinuates itself into the "other's" place fragmentarily, without taking it over in its entirety, without being able to keep it at a distance. It has at its disposal no base where it can capitalize on its advantages, prepare its expansions and secure independence… The "proper" is a victory of space over time"* (DeCerteau, 1984, xix). Of course, it might be possible to select a number of more orthodox definitions describing what a "tactic" is, e.g. from a simple viewpoint of dictionary or equivalent resources. However it is a precise epistemological choice within this PhD to build a postmodern rationale based on critical thinking, hence the selection of DeCerteau as privileged source. Even more functional to the analysis in this chapter, as a potential synthesis where strategies are paradoxically formed on the basis of processed tactics: "…*the "proper" is also a mastery of places through sight: …to be able to see (far into distance) is also to be able to predict, to run ahead of time by reading a space* (DeCerteau, 1984, p.36). Within a "proper", the tension in the interplay of strategies and tactics generates "knowledge", which ultimately translates into "power": "*It would be legitimate to define the power of knowledge by this ability to transform the uncertainties of (future) history into readable spaces: …scientific strategies have always been inaugurated through the constitution of their own autonomous areas, "neutral" or "independent" institutions, laboratories pursuing "disinterested" research"* (DeCerteau, 1984, p.36). "Strategies" and "tactics" appear opposite yet complementary approaches in a game of control for power, where a "proper" is crucial. Be it power over a territory or control of specific socio-cultural processes. For the specific purpose of establishing a more constructive connection between these two apparently antithetic dimensions, a fifth paradigm of strategic thinking will be introduced at a later stage in Chapter 4. Completing the operational taxonomy, introducing at the opening of this paragraph "Design Thinking", in line with Gergen's ambitions and aspirations for world-making research practices, beyond mirroring; "*Now invited is a further exercise of the imagination, extending and expanding the vision of inquiry. There are promising possibilities, for example, in linking researchers with the creativity by design movement in the technological sphere. More broadly, one might explore the possibility of researchers working with governments to experiment with new and more viable forms of governance? Or, might it profit the world to have at its disposal a body of researchers whose talents were available to work creatively with conflicted parties? With education in the science of world making, and the broad dissemination of successful innovations, perhaps we could escape the logic of determinism and begin to realize the potential of collaboratively fashioning the future"* (Gergen, 2014, p.17). It is appropriate to firstly formalize a definition of linear "forecasting", described as: *"…linear systematic estimations, statements, extrapolations… a forecast is always a probabilistic statement in futures domain… Forecasting the possible existence of a condition or technology may make that condition or technology become more likely, with possible political implications"* (Kuosa, 2012, pp.23–24). Within this sub-domain, *"…a general*

division can be made between formal statistical methods that often employ ICT software and more human-centric, judgmental methods" (Kuosa, 2012, pp.24–25). Positivist forecast for linear planning, e.g. by simple deployment of technological roadmaps, can be seen as one of the key enablers of such control by anticipation and organization of resources: *"While recent futures studies includes contesting the views of the future as well as ways of knowing –the deep cultural myths and metaphors- of researchers and participants, a generation back futures studies placed a far greater emphasis on forecasting. The assumption behind forecasting is that the future can be generally if not precisely known. With more information, particularly more timely information, decision-makers can make more effective choices. Having more information is especially important since the rate of technological change has dramatically increased. However, the need for information, as in times before is necessitated by a fear of the future, a feeling of impotence in the face of forces we cannot understand…"* (Inatullyah, 2015, p.3) The aforementioned clear distinction between forecast and foresight must be therefore reiterated. At this point, it must be specified again how foresight -in its shared definition- is an agency contributing to the recognition of uncertainty and complexity, in line with the critique expressed by DeCerteau and Gergen–and not antithetically. While positivist forecast a-contextually determines one direction for the future, foresight operates at a visionary level, according to participatory and iterative principles. To some extent, it is possible to state that strategic foresight emerged as a discipline precisely because of and in response to the critique to traditional forecasting, in order to explore and scope possibilities and preferences. Therefore, the political dimension of social sciences finds in such "foresight" domain a moment of pivotal evidence. "Design Thinking" might be seen as a complementary and parallel knowledge domain, where new insights, new methods and new tools might be identified, to bring the critique of traditional linear forecasting even further. For example, foreshadowing definitions to be provided at later stage, a minor line of analysis might be triggered by the convergence of visual and visioning practices with knowledge and power. "The power of the visual" might be a synthetic way to introduce the connections between "design" and "foresight" that will be articulated throughout the next chapters and sections of this PhD study.

As a preliminary conclusion, one might notice how the "discourse" of social sciences, e.g. as envisioned by Gergen, is differentiated from that of plain "control oriented" strategies, just like "foresight" is differentiated from positivist forecast *(Van Leeuwen, written communication in digital format, 03/04/2013 at 19:03CET).* However social sciences must refer to the standards and protocols of "scientific doing", therefore generating socio-linguistic manifestations that, as much as imperfect, must maintain a formalized and procedural nature in their structuring and in the processes that lead to their creation (Greimas, 1976, Tr. It. 1991, p.3). From this viewpoint, as anticipated earlier in this chapter and also extending the argument to history, social sciences appear to enjoy the semiotic status of a *"linguistic practice"* (*"fare linguistico",* in the Italian translation of Greimas, 1991, from the French original*).* In these semiotic processes of production, "nouns" achieve a specific meaning because of their taxonomic position in the scientific discourse (Greimas, 1976, Tr. It. 1991, p.7). In this positivist epistemological structure a "proper" territory in semiotic terms, focused on the passive, taxonomic dissecting of inert experimental objects, explanted from daily practices and isolated from their organic everyday: "…*such "proper" is a combinatory outcome of existing power relationships within society, and a victory of space over time…"* (De Certeau, 1984, xix). Here, reification of the object of study is a common trait, as a marker of scientific practice. It must be added that the very notion of "reification" might be subjected to historical and dynamic interpretation. However it might be valid to assume,

as a working hypothesis, that a social effect of such universal procedures of science might translate in the alienated divide between specialists and *"…the multitudes left out of the networks of scientists…"* (Latour, 1987, p.180), namely illiterate stakeholders. For example, citizens not directly involved in the research process but affected by its results. It must be added, that the notion of scientific networks should be extended beyond the strict "human factor", namely; *"Although previous study has centered on social actors alone and the way in which they construct scientific knowledge, actor network theory extends the range of actants to include physical objects (such as scientific instruments, computers…), documents, laboratory facilities, and so forth. A network (including persons) is constituted by the interdependent relations among the participating elements, and from this standpoint, it is the operation of the network as a whole that yields what we take to be legitimate scientific knowledge"* (McNamee, Gergen, 1999, p.17). Discussed by Slaughter (1995) as "softer elements" of the formal field of future studies, "networks" of scientists constitute the socio-cultural framework where the condition of "inclusion" is the discriminating key to exercise the power of knowledge within a specific discipline. Furthermore, "networks" will be presented in Chapter 4 as one of the key constituencies of the design approach behind High Design.

1.4) A "PROPER" PLACE FOR FUTURES RESEARCH

Of course, perhaps also due to its relative short time of existence, it must be specified that futures research is eminently hybrid and highly multidisciplinary: *"Futures is an interdisciplinary field of enquiry"* (Slaughter, 1995, p.34). In order to scope its "proper", according to DeCerteau's definition, it is firstly possible to identify three elements that, by overlapping each other in a layering structure, provide internal synthesis to the field (Slaughter, 1995, pp.35 through 39):

1) theories: emerging from linguistic practices, these are primarily intellectual and symbolic resources. Applicable to futures research thanks to their role in the organization and shaping of the necessary structures of reference (Slaughter, 1995, p.35). Theory has a dialectic relationship with practices as it regulates them once practices are derived or inscribed within theoretical framing. However, at the same time, theoretical reflection is a process that acquires (everyday) practices into the formal realm of science by a procedure of selection and inversion (DeCerteau, 1984, p.64);

2) images, concepts, metaphors, where "metaphors" work on the poly-semantic levels of raw research materials in equivalent fashion as identified by Greimas in the context of social communication (Greimas, 1976, Tr. It. 1991, p.47). Theoretical building blocks can be then articulated in (verbal or visual) metaphorical statements within the futures discourse and be assembled to populate the future well beyond its popular notion of "empty space". In particular, images of the future are ubiquitous in Western popular and higher culture, be it a utopian or a dystopian future (Slaughter, 1995, p.35). It might be foreshadowed as a working hypothesis that images, concepts and metaphors might act as "critical realist" posits in future-forming processes;

3) methods, tools, practices: this third element represents the core of applied futures work and the key enabler of consulting projects. "Methods" can be defined as the management "tools" of those processes that convert unstructured

or implicitly structured “practices” (and their informal “know how”) into rational and formalized discursive “actions”: “…*methods are the seed of science and they set off practices articulated by discourse from those that are not (yet) articulated by it”* (DeCerteau, 1984, p.65). At the end of the process, the linguistic conversion from “practice” to “science” is complete, since methods are the agencies operating the necessary linguistic inversion to achieve such conversion. A selection of exemplary methods selectively connecting with the focus of this PhD study will be presented in Chapter 2 ahead.

The above elements of futures studies and foresight were expanded from Slaughter (1995, pp.35-39). Of course, it should also be mentioned, following Slaughter again, how the same field is actually populated by “softer elements” that represent the human component and the community factor of futures research, including: a) literature and practitioners; b) organizations and networks as introduced in the above paragraph. It is a relevant topic of debate whether social movements should be included in the futures research field or not. The relationship between Marx and “scientific socialism” and their impact on reality through propaganda platforms and politics were mentioned in the earlier paragraphs. In the consulting context, a distinction can be made between change in the world that has implications for the enterprise, but over which the enterprise has no influence, versus change produced by the enterprise itself. In this respect, more generally, it seems difficult to establish a dividing line where futures studies and foresight stop being “science” and start being “action”, also in the light of connections between futures work and social innovations by the likes of Robert Jungk and his London-based Institute for Social Inventions. Here practices such as; participatory workshops, which will be introduced in the last part of the Chapter 2, were piloted and formalized within the methodologies of foresight (Slaughter, 1995, p.39). At the other end of the spectrum of futures research practices, a critical review of applicative consulting services (and implicitly to their scientific or formal justifications) highlights the risk for professional futurists and strategic advisors to create inertia *“…packaging of the future into business options and opportunities…”* (Castells, 2010, xl), resulting in the technocratic colonization of the future into standardized images and ready-made scenarios for fast turnaround consumption in marketing cycles (Sherden, 1998, pp.218 – 219). Between these two extremes, Gergen’s challenge to make the future by research rests. It must be reiterated how such a critique might apply only to a segment of professionals, namely those working according to positivist forecast principles, e.g. for the purpose of technocratic planning. Whereas: *“…In the* critical*, futures studies aims not at prediction or at comparison but seeks to make units of analysis problematic, to undefine the future”.* (Inayatullah, 2015, p.7). The distinction between linear forecast and the most advanced formats and forms of foresight must therefore be once again reiterated. On the other hand, obviously, complexity is not always better, especially when pursuing change. Simple yet powerful ideas might be more actionable, therefore impacting, than complex, deep philosophical discussing. In this respect, once again the power of visual synthesis by design might represent a key to communicate future-forming concepts and scenarios.

1.5) TOWARDS FUTURE STUDIES

Within a preliminary epistemological elaboration, aimed at contextualizing and validating the specific appropriateness of futures research on the basis of a formal framework, the semiotic core of research processes requires deeper attention. In order to meet this challenge, it might be appropriate to start by referring to the theoretical division operated

within linguistics by Ferdinand De Saussure (Lyons, 1981 – 1991, p.12) between:

a) the *"parole"* (the enacted act of speaking and the related phonic materials, repository of "signifiers"), and:

b) the *"langue"* (the organized system of grammars and relationships that connects meaning to speaking, hence repository of "signifieds").

Within this classification, "knowledge" is conceptually equivalent to what resides in the "parole", whereas "science" is conceptually equivalent to what resides in the "langue" (Caprettini, 1980, p.118). "Meaning" is generated through linguistic/semiotic processes: *"The constitution of identity negatively through difference applies to each of the two aspects of linguistic signs, signifier and signified. But their combination in the sign transforms the negative into the positive. The only positive feature that language possesses… is the articulation of "signifiers" and "signifieds" in the process of speaking or writing"* (Giddens, 1979, p.12). Within the above interplay the role of interpretation is confirmed as central, with sensorial data and information, e.g. visual impressions, being the unstructured input requiring processing at a level of signification (Eco, 1975 – 1985, p.222). Thus, generating a connection from raw reality to knowledge and then from knowledge to science. In this respect, adopting the taxonomy by Charles Peirce, it is possible to identify three levels of semiotic processes:

a) *"icons",* based on similarities;
b) *"indexes",* based on natural contiguity; and
c) *"symbols or signs"* based on instituted contiguity, or in the form of a rule.

"Knowledge objects…" belong to the latter class of semiotic production, as they are potentially universal in their power of representation (Caprettini, 1980 pp.126–127), following the more general 1897 definition by Peirce himself: *"A sign or representamen is something which stands to somebody for something in some respect or capacity"* (quoted in original language in English in: Caprettini, 1980, p.49). Here it is possible to specify the following components of the fundamental semiotic process:

a) the *"representamen",* which *"stands for"*
b) something else, namely an *"object"*
c) thanks to a specific mental process in the recipient of communication, identified as *"interpretant"*.

Semiotics can therefore be described as a key process of mediation between a subject and an object, thanks to an *"image"* (Caprettini, 1980, pp.50–51). The semiotic process always requires a strong reference to *"…what is…"* which is defined by Peirce as *"ground":* the *"ground"* is connected to the "sign or symbol" through a chain of semiotic operators and objects, with the "correlate" at the median point thereof (Caprettini, 1980, pp.120–121). This line of thinking challenges any positivistic interpretation of reality as being objectively constituted, indeed in "objects", to be investigated by questioning.

Within this circularity of references between supposed "reality" and constructed *"meaning",* two processes regulate the formation of "scientific knowledge"; deduction and induction. Although different in their procedures, they both require (in rational terms of either "rule-depending" for deduction or "rule-forming" for induction), a necessary connection to a *"ground"*. This is once again exactly where the key scientific challenge of

historical or futures research lies, in parallel with remote fields like astronomy, however mitigated by debates over the existence or not of "objects" in social sciences. For the purpose of this PhD study, nevertheless, the main focus was identified with history and the main (epistemological) assumption does privilege a view of society where any object is constructed through / as a process. Since their objects of interpretation and representation do not exist any longer or do not exist yet, respectively, history and futures research are proposed as comparable. Therefore there is the need to *"ground"* the deductive or inductive processes in either contemporary sources, documents or evidences, as well as in transitional constructs that *"stand for"* those objects that do not exist any longer or do not exist yet. This means that *"grounding"* for a projection –be it backwards or further ahead in time- is a phenomenon based on leveraging hypotheses, sources and evidences, with an effect of time displacement. Such representation might possibly border alienation, and implies the necessity of interpretation through the given contemporary cultural frameworks of its own time. In order to further articulate this line of analysis, the next paragraphs will address proposed solutions to this epistemological challenge, extending and enriching the semiotic analysis above and then, at later stage, introducing both "*abduction*" as well as an operational interpretation of *abduction*, namely "*Trained Judgement*".

In order to complete the basic semiotic scheme presented so far, a few conditions apply to social sciences, possibly leading to indicate that a different epistemological paradigm applies to qualitative sociological research in its reflexive nature:

1) It might be inappropriate to separate theoretical reflection from practical construction of social sciences, as the epistemological challenges and the empirical procedures of qualitative research display a peculiarly high degree of conceptual continuity (Melucci, 1998, p.16). In this vision of social research, language is central and the relationship between the observed field and the observer is re-defined "from dichotomy to connection", with co-creative generation of "plausible meaning" across different communication platforms as the natural outcome (Melucci, 1998, pp.22 – 23).

2) One cannot but record the influence of qualitative research approaches developed as the long tail of the 1960's "*linguistic turn"* in social sciences and the influence of communication and hermeneutics, including but not limited to symbolic interactionism and ethnomethodology (Melucci, 1998, p.20). This specific concept, *"linguistic turn"*, at the basis of the postmodern understanding of social sciences, will be further introduced and specified in historical perspective in the 6th paragraph of this Chapter. Such *"linguistic turn"* is also reflected in historical reflections and practices (Staley, 2007, p.2). Here, the risk is identified of a possible involution of "reflexive social research" into a postmodernist spiral of critique (Davies, 1999, p.5). This might result in the departure from "social sciences", towards other narrative forms of storytelling from fiction to journalism. The latter might be inspiring (as demonstrated in earlier paragraphs) but they cannot be strategically classified and formally processed as "scientific".

3) As a natural direction of evolution, reflexive social research takes on board the capital responsibility to *"…mediate between different constructions of reality"* (Davies, 1999, p.6). Here the topic of the presentation of findings and reporting of research results is key, both to the recent reflection on the epistemology of social sciences (Melucci, 1998, p.23), as well as for the specific context of the analysis

of how “design” might connect to futures studies through visual representations of storytelling scenarios and images of the future in general (see further references in Chapter 4 on design as an approach for futures research).

Before proceeding to the elaboration of a first “kernel enabling system” of futures studies it is indeed important to specify their context and possible purpose. By strategically expanding the reach of this field of investigation to three distinct research macro-dimensions, cross-referenced here below to the more general knowledge-constitutive interests as originally defined by the theory of Jurgen Habermas, in the applicative contextualization by Kuosa (2012), it is possible to identify:

a) *Predictive / empirical dimension: a more deterministically attuned study of hypothetical futures that are assumed as possible to be known* (Kuosa, 2012, p.32)*,* matching: *the empirical-analytic approach with a technical means-end interest* (Kemmis, in Reason, Bradbury, 2004, pp.91 - 92)*;*

b) *Cultural / interpretive dimension: a language-based, comparative generation of cultural insights into possible future human conditions, with a more relativistic accent* (Kuosa, 2012, p.32), matching: *the hermeneutic-interpretative approach with a practical interest* (Kemmis, in Reason, Bradbury, 2004, p.92)*;*

c) *Post-structural / critical dimension: a paradigm-lifting exploration of futures beyond current discourses of epistemological understanding, asserting the fragility of the present and its dependence on ways of knowing* (Kuosa, 2012, p.32), matching: *the critical approach, with an emancipatory interest* (Kemmis, in Reason, Bradbury, 2004, p.92).

The adoption of one specific research dimension at each given time offers the opportunity to project and leverage the conceptual construction of futures research tools with the possibility to achieve, at different levels of impact and of relevance, the effects created by self-altering prophecies.

1.6) TOWARDS CONSTRUCTIVISM: THE ROLE OF ADBUCTION AND OF CRITICAL REALISM

Since the Enlightenment, it might be stated that Western thinking associated science with mathematic rationality. Reason and Bradbury refer to the work of Stephen Toulmin (Reason, Bradbury, in Reason, Bradbury, Eds., 2001, rep. 2004, pp.4, 5) to identify the XVII Century as the turning point when the “Cartesian program” imposed its apparently objective, quantitative-based priority on the modern visions of what knowledge is. As objective as this Cartesian framework intrinsically appeared to be under the positivist paradigm, it is yet one of the possible scientific paradigms (Kuhn, 1962, quoted in: Reason, Bradbury, Eds., 2001, rep. 2004, p.4), hence subjected to cultural review, revision and ultimately change. From this starting point, the same authors identify a number of 1960’s *“epistemology turns”,* e.g. the *“cognitive turn”* (focusing on schemata and mental models) and the aforementioned *“linguistic turn”* (focusing on language and metaphors), leading to the postmodern perspective. In the same line of thinking, according to Gergen: “*For over 50 years now social scientists have joined with scholars across the humanities and natural sciences in dialogue and debate on the extent to which our common practices of establishing knowledge embody the traditional ideals of*

objectivity and truth. Wide-ranging critiques based on the value saturation of knowledge claims, their literary and rhetorical dependency, and their social (as opposed to empirical) origins, have virtually eliminated the quest for a foundational philosophy of science. Called into question is nothing less than the legacy of the Enlightenment and the rational foundations of science. Yet, within the social sciences we find the vitriolic controversies of the so-called "science wars" have largely subsided. Putting aside those enclaves that simply remained oblivious, this mellowing may be traced both to a broad resistance (both conceptual and practical) to the extreme forms of critique and defense, and to a growing acceptance of some of the less nihilistic critiques. In effect there are several lines of critique that, in their less antagonistic form, have become relatively uncontroversial. Agreement on these assumptions does allow a place for traditional lines of research, although qualified in significant respects. I would characterize this emerging consensus as a reflective pragmatism*" (*Gergen, 2014, p.2). Here, reality is defined as socially constructed through language and "objective knowledge" is an oxymoron. The long tail of this 1960's revolution in humanities and epistemology intercepted, in industrial and economic context, the more recent end of modernist influences. This resulted in the expansion of the notion of "knowledge" from "analytical" to "vernacular", re-defining relationships between the spheres of Modernist analytical planning and the "organic everyday" as defined by deCerteau. The role played by Karl Popper's critique of inductive logic in the re-definition of contemporary philosophy of science is key (Giddens, 1993, p.19). In this respect, *"…scientific falsiability"* (Popper, K.; Neurath, O.; Schaeffer, I.; all quoted in: Bell, 1997 – 2003, Vol. I, p.100) has been described as critical for the generation and acceptance of scientific knowledge. In this line of theoretical thinking, Gergen identified the concept of "endurance" within scientific communities of practices (Gergen, 2014, p.10) to clarify the relevance and workings of falsifiability, and its limits: "…*That is, the subject matter must be sufficiently enduring (repetitive or replicable) that useful knowledge can be established. When we can presume the enduring existence of a subject matter, we can properly begin to measure, generalize, and predict. The very concept of research enshrines the assumption, suggesting that the object of our gaze remains stable, such that we can return to "search" again. In re/search, assumptions about the subject matter can be vindicated or vanquished, and useful generalizations or insights may be shared* (Gergen, 2014, p.10). However, social sciences in their postmodern notion have moved way beyond any ambition of falsifiability by means of "endurance", or experimental repeatability, mirroring natural sciences. In the course of the XX Century reflexivity, as a principle, diverted social sciences from attempting any emulation or mimicking of natural sciences and their procedures, whilst this was still case with Marx and his scientific approach. As envisioned by Giddens, it is actually crucial now to consolidate social sciences within another framework of reference in order to differentiate them from natural sciences at epistemological level (Giddens, 1993, p.19). In order to do so, it is appropriate to start from the consideration that science is a *"semiotic discourse"* (as highlighted by Greimas) determined by its own procedures, as its "scientific method" requires the sterilization of its objects of study. The objects of scientific study need *"…to be delimited, simplified and transferred into the real or virtual laboratories where "practices" are rendered inert first, to be then dissected into tools, products or descriptive schemas"* (De Certeau, 1984, p.20). Within such deconstruction science might be compared to technique from the perspectives of instrumental rationality and reductionism where, *"by "instrumental rationality" a cognitive system is described, that mechanically matching means to ends, with a perception of the world as an inert reserve of resources, whereas by "reductionism" a mindset is described, prescribing quantitative measurement as necessary for the description of any object of analysis"* (Slaughter, 1995, p.17). In

general, within the processes of "scientific doing", a dialectic relationship can be identified between theory and "praxis", namely; *"Where the pursuit of knowledge through theoria is to establish an articulated truth, knowledge through praxis is achieved through and represented within ongoing action. In contemporary educational circles the distinction is represented in the contrast between propositional and procedural knowledge, where the latter is implicit, unformalized, and realized through accomplishment. Also relevant is the Socratic concept of episteme, or knowledge embedded in the active accomplishment of a goal, with techne representing the craft-like ability to make or perform"* (Gergen, 2014, p.8). In this respect, the differentiation across theory, praxis and *techne* are not purely speculative reflections. It might be observed how dominating "scientific institutions" are normative in their organization and their management of formal discourses, with the explicit power to exclude and silence alternative islands articulating "minor" everyday practices (De Certeau, 1984, p.48). Conversely, in the domain of futures research it might be necessary to fully engage in the dichotomy identified by Latour: *"We will have to learn to live with two contradictory voices talking at once, one about science in the making, the other about readymade science. The latter produces sentences like 'just do this… just do that…' the former says 'enough is never enough'. The left side considers that facts and machines are well determined enough. The right side considers that facts and machines in the making are always under-determined"* (Latour, 1987, p.13). What appears particularly challenging in this context is the failure of *"…constructing practice other than negatively",* recalling the semiotic procedures introduced and described above. From this perspective, the objectivist imperative tends to just enable the *"recording"* or the *"reification"* of regularities *"…by the fallacy of treating the objects constructed by science… as realities"* out court (Bourdieu, 1972, Tr. En. 1977, pp.26–27). The resulting *"…constitutive understanding"* (Slaughter, 1995, 16) that emerges from the above descriptors of the system of sciences hints towards the universal prevalence of the governing logics of technical/technocratic systems. Such as, those systems of planning and positivist forecast, e.g. deployed by the aforementioned dictatorships between the two World Wars in equivalent fashion to their predominance upon societies (Slaughter, 1995, p.61). This status quo determines a conceptual analogy with the same substantial principles described by Manuel Castells. These include the image of the *"automaton",* "standing for" the workings of contemporary digital networks and their self-fulfilling, uncontrollable, alienating applications (Castells, 2010, xliii).

From the perspective of any aspiration to achieve predictive preciseness, a specific fragility of futures research, or *"futurology" as coined in 1942 by German sociologist Ossip Flechtheim* (Sherden, 1998, p.214) as a sub-sector of social sciences still lies in the apparent contradiction of its *"scientific ambitions" versus the generalizations required in reporting its project outcome* (De Certeau, 1984, xxiii). How to address such fundamental challenges? The answer lies in the very nature of human beings: *"Sociological imagination and human judgment appear more critical and crucial than ever in the analysis of human future systems and their discontinuities, where classic quantitative techniques and extrapolation do not appear to meet the existing challenges"* (Bishop, Hines, 2012, p.199). What creates the widest gap and distance between socio-cultural practices and scientific strategies is the fact that the *"production of society is a skilled performance, sustained and "made to happen" by human beings"* (Giddens, 1993, p.20). It is therefore the human being, here identified as the "social actor", be it the scholar or the expert or the layman within his humble every day, that owns the most relevant "agency of foresight", namely "human imagination" (Slaughter, 1995, p.75). Within this framework, *"action or agency does not refer to a series of discrete acts*

combined together but to a continuous flow of conduct" (Giddens, 1979, p.55). Confronted with a context where positivist science and its applications have given itself structures and standards to own a *"proper" by leveraging falsifiable procedures of quantitative nature,* scholars in social sciences and consultants in futures research do counterbalance their disadvantageous position by acting as *"experts" within society, hence establishing and profiling themselves as mediators between a scientific or para-scientific body of knowledge and the everyday world of practices and people"* (De Certeau, 1984, p.6–7). It is in the very heart of social sciences procedures and processes of research and communication that theoretical answers must be further investigated. By taking a step further into the frameworks of formalization and validation of social sciences it is possible to describe sociology as a cycle including the following elements (Wallace, 1971 – 2009, p.18 – described as verbal synthesis of graphic visualization):

a) at level of milestones in the process: *from theories to hypotheses to observations to empirical generalizations, feeding back theories: by connecting hypotheses and empirical generalizations, the researcher can test hypotheses, both by generating feedback to theories as well in terms of logical inference* (adapted from: Wallace, 1971 – 2009, p.18);

b) at level of operational praxis leading from one milestone to the next milestone: *"logical deduction" connects theories with hypotheses, whereas "interpretation, scaling and sampling" lead from hypotheses to observations, in order to enable the necessary "measurement, sample summarization and parameter estimation" that will enable the generation of those empirical generalizations that –once processed into concepts and propositions- will provide feedback into the theoretical realm* (adapted from: Wallace, 1971 – 2009, p.18).

Based on the above preliminary analysis, a viable hypothesis of a generic theoretical framework that might appear functional to the epistemic support of futures studies is that of "critical realism", as foreshadowed above. Here humanism drives but empirical and logical justifications are plausible because there exists the awareness of "reality" a priori with the possibility to test ideas (Bell, 1997 – 2003, Vol. I, pp.207–208). In particular: *"Empirical realism treats the world as consisting of observable atomistic objects, events and regularities among them, as if objects had no structure or powers, and in particular, no observable qualities. Critical realism distinguishes not only between the world and our experience of it, but between the real, the actual and the empirical… When critical realists refer to the 'real', this is not in order to claim privileged knowledge of it, but to note two things. First, the real is whatever exists, be it natural or social, regardless of whether it is an empirical object for us… Secondly, the real is the realm of objects, their structures and powers… they [objects] have certain structures and causal powers, that is, capacities to behave in particular ways, and causal liabilities or passive powers, that is, specific susceptibilities to certain kinds of change. In the transitive dimension of science we try to identify these structures and powers… Realists therefore seek to identify both necessity and possibility or potential in the world – what things must go together, and what could happen, given the nature of objects"* (Sayer, 2000 – 2010, p.11). Within the context of futures research "critical realism" offers the opportunity to reflect on how knowledge objects are formed through interpretation and reflexivity, while preventing the aforementioned risk of dissolving research formal practices into individual preferences or aesthetic soliloquy (Melucci, 1998, pp.30–31): "*Critical realism introduces the notion of "justified belief" in the truth of a proposition: the focus is not on the truth of*

the proposition itself, but only that a person is justified in believing that the proposition is true. To verify the reasonability of such belief in the truth of a proposition, the critical realist approach tries to show that it is false and therefore not worth believing, hence the definition of "criticism": if all critical attempts to show that the proposition is false do fail, than the belief in the truth of that proposition is justified" (Bell, 1997–2003, p.210). The key that makes critical realism an optimal theoretical platform to operationalize futures research lies in the acceptance of conjectural knowledge as a possibility, while keeping due focus on the object of study. A system of theoretical elements might be specified to enable the actual study of the future within the framework of Critical Realism. Such a combined and complete epistemological kernel system will include as its constituents: a) posits, b) surrogate knowledge, c) presumptively true predictions, d) self-altering prophecies (Bell, 1997 – 2003, Vol. I, pp.224 – 225 – 226 – 227 - 228), or, selectively focusing:

a) *"a posit is a statement that we treat as true although we do not know whether it is so… Posits include statements about the future on which people might or could act appropriately if certain circumstances were to prevail"* (Bell, 1997 – 2003, Vol. I, p.224);

b) *"knowledge surrogates refer to posits about the future that have survived serious procedures of falsification and that therefore can be elevated to the status of conjectural knowledge… under the condition that this warranted assertibility is not confused with "truth" tout court"* (Bell, 1997 – 2003, Vol. I, p.225);

c) *"ultimately and more complexly, the prediction of an undesirable future might influence people to change their behavior: …this is the "self-altering prophecy"* (Bell, 1997 – 2003, Vol. I, p.229)

The descriptions above reiterate the notions of classic "deduction" and "induction", which represent the basis of positivist scientific practices, including those of social sciences, from sociology to anthropology; to then shift to a description of critical realism and end with the notion of "justified belief". This is a vision of social sciences based on sensorial and intellectual experience, hence visual impressions might find here an applicative context.

In order to effectively capture the essence of the scientific working fundamentals of sociology a third process of knowing needs to be introduced and positioned in parallel to deduction and induction, that of "*abduction*", defined as: *"A method of forming a general prediction without any positive assurance that it will succeed either in the special case or usually, its justification being that it is the only possible hope of regulating our future conduct rationally"* (Fischer, 2001, p.13). While the focus of any scientific process can be indifferently positioned with "deduction", from theories to observations as primary step, or with "induction", from observations to theories along a classic scientific axis, the notion of "*abduction*" brings into the picture a newly feasible, highly creative *"*(constructivist) …*transition from fallacious thinking to a different kind of thinking"* (Fischer, 2001, p.12). "*Abduction*" represents the semiotic process by which a sign ("intuitively") finds its position in a "coding system", hence connecting a phenomena at *"ground"* level to meaning through para-logical means (Fischer, 2001, p.12). A generic scientific foundation of sociology might now be justified, as above, including "*abduction*" to assimilate within the formal process of science the potentially irrational formation of rules/laws directly from the level of "results/observations" of phenomena (Fischer, 2001,

Figure 1). From a constructivist viewpoint: *abduction* offers the opportunity to work with inferences as "constructions" of representations of reality (Peirce, quoted in: Fischer, 2001, p.11). It is appropriate to define the constructivist epistemic view in a stratified fashion (adapted from: Gergen, Gergen, 2003, pp.2-5):

a) *social constructionism has multiple roots… Social constructionism is not a singular and unified position;*
b) *…constructionist dialogues will challenge the individualist notion, and increasingly invite an appreciation of relationships as central to knowledge…;*
c) *…constructionist emphasis on language has brought new life to… rhetoric…;*
d) *The increased awareness of the communal construction of knowledge, along with its linguistic constraints, do far more than unsettle our traditional beliefs in truth, objectivity and knowledge – beyond history and culture. Thrown into question is also the right of any group –scientific or otherwise- to claim ultimate authority of knowledge.*

As a process to functionally convert a) experiential practices into knowledge and then b) knowledge into scientific proper materials, "*abduction*" might therefore be identified as a key trait in the epistemological DNA of future studies. Whereas, constructivism should be identified as higher epistemic principle in this field. Although, constructivist might be beneficially complemented by principles derived from critical realism, where appropriate, e.g. "posits" as transitional objects of enquiry, for the purpose of operationalization in the design context (foreshadowing next chapters).

Both constructivist epistemics as well as the practice of abductive inferences, but also posits and knowledge surrogates, benefit at best of one universal mindset to sustain their role as conceptual operators for futures research, namely critical thinking: *"The importance of critical thinking for futurists is indisputable: critical thinking establishes the bridge between the baseline* (the most logical extrapolation of current trends) *and alternative futures* (the scenarios enabling exploration of different options and anticipation of truly unexpected, disruptive events)" (Bishop, Hines, 2012, p.210). One might conclude, in line with Giddens, that the ultimate purpose of futures research as based on *abduction* and critical realism is to *"…sustain a principle of relativity while rejecting relativism"* (Giddens, 1993, p.23). This might capture the aforementioned difference between linear forecast and the practice of foresight.

1.7) TOWARDS FUTURES RESEARCH METHODS: ACTION RESEARCH, DEFINED

In the shift from mirroring reality to future-making, starting from the notion of speculative falsifiability, social sciences and social research are challenged in terms of productivity and impact: *"…three registers of inquiry—liberatory, practice producing, and action centered—illustrate the substantial potentials inherent in a future making orientation to research. In my view they carry with them the early winds of change, harbingers of a significant transformation in the conception of knowledge and the practice of social research"* (Gergen, 2014, p.17). As Giddens noted, "action" and "structure" are often perceived as being positioned at opposite ends of the epistemological spectrum of social sciences (Giddens, 1979, p.49). At theoretical level, additional epistemological texture might therefore be required to frame any hypothesis of social sciences pursuing societal change. Hence, moving beyond a reified notion of positivist science tout court or a postmodern notion of relativist social science. This necessity leads to the likewise

necessary "…*recuperation of humane, convivial, rational resources, in line with Habermas' theory of communicative action"* (Kemmis, in Reason, Bradbury, 2004, p.93), where the practice of dialog, reflection and discussion are reframed as essential. The impact of post-positivist and post-modern paradigms on what we identify as "research" can lead to re-thinking research from the perspective of "presentational knowledge". As sketched in this Chapter, on the basis of Melucci, 1998, might confirm the need to re-consider the actual role of images, visuals or artistic materials, including performance arts (Riddet-Moore and Siegesmund, in Klein, Ed., 2012, p.107). This might open up a new role in research for both fine artists and designers; it certainly does so for the latter as Chapter 4 will articulate. Additionally, the "metaphor of participation" might be further relevant. Reason and Bradbury refer to Shotter and his notion of *"…knowing from within a social situation… thus taking into account the* others*",* which leads to a differentiated way of knowing with respect to content or skills (Reason, Bradbury, in Reason, Bradbury, Eds., 2001, rep. 2004, pp.6-9). This naturally leads to the development of three different operational notions of research incorporating "action" in its process of constituting and articulating knowledge:

1) Action Research: *"a democratic process concerned with developing practical* knowledge*, knowing the pursuit of worthwhile human purposes, grounded in a* co-creative *worldview…"* (Reason, Bradbury, Eds., 2001, rep. 2004, p.1);
2) Participatory Action Research, *"with the aim to change practices, social structures, and social media"* in order to "*emancipate people from irrationality, injustice, and unsatisfying forms of existence"* (McTaggart, quoted in: Reason, Bradbury, Eds., 2001, rep. 2004, p.1).
3) Action Science, being defined as *"an approach to action research which integrates practical problem-solving with theory-building and change"* (Argyris, Putnam, Smith in 1985, quoted in: Friedman, in Reason, Bradbury, Eds., 2001, rep. 2004, p.159).

It might be noted how the three definitions above represent points on a continuum, instead of dividing the field under examination in three insular entities. One might argue that "Action Research" is intrinsically participatory to some extent, hence the main point of distinction between "Action Research" and "Participatory Action Research" might identified in the benefit of "emancipation". The differentiation between "Action Research" and "Action Science" is instead clear, being grounded in the existence –or not- of those "feedback loops" that enable the generation of theoretical novelty. There is a strong sense of direction and purpose, bordering with a generic ethic claim that action researchers act according to specific directions of progress (once again, "emancipation"). This ethic constituency is intrinsic in the definition of Action Research, as herewith defined, as an ontological necessity thereof. Of course, action research tools and methods might be abused for unethical purposes, like any tool might be misused. Or the definition of the common good and welfare might be ambiguous, as any constructed concept. However, with full awareness of these limiting conditions, the above expansion in epistemological modalities of research mirrors the potential expansion of "futures research" in terms of *"…abandoning all theories which explicitly or implicitly treat practice as a mechanical reaction, directly determined by the antecedent conditions and entirely reducible to the mechanical functioning of pre-established… models"* (Bourdieu, 1972, 1977, p.73). In line with notions of foresight as presented above, the ambition is to move futures research from plain observation of a reified world to intervention into political and economic but also aesthetic, visual and experiential practices, with the ultimate ambition to achieve change. Of course, there is a long tradition of speculative

reflection as a positive contribution to philosophy and other theoretical realms, where knowledge for knowledge sake is a worthwhile goal of human enterprise. However, the conclusion of this chapter see the convergence of different bibliographic references and different lines of thinking towards the drive of research to impact the real, in line with Gergen's priorities and urgencies.

CONCLUSIVE NOTE

There appears to be a convergence from different analytical views: from Castells' quantified "*automaton*" to De Certeau's "structures" and "everyday practices", as articulated on the basis of references to Bourdieu, to the work of prominent scholars in social and futures studies like Gergen, Slaughter and Bell. The challenge appears clear, and it is theoretically grounded in a general perspective; "…*futures studies can be described as processes of meaning-making aspiring to trigger and contribute to the cultural reconstruction beyond postmodern relativist conditions and the consequent semiotic de-structuring of signifier and signified"* (Slaughter, 1995, p.133). The study of time and its modeling in linear structures can enable *meeting the ethical imperative to critically address the current risk of "future discounting"* (Slaughter, 1995, p.132), or the constant erosion of future resources and opportunities caused by the apparently inevitable mechanisms of the reified "*automaton*" humans created and cannot control any longer (Castells, 2010, Op. cit.). An Action Research approach, with a conscious focus on the dimension of practices might offer the opportunity to re-balance this risk within a socially focused practice futures research. Constructivism was identified as the key epistemic reference in terms of optimal formal governance of any methodologies to be designed within futures research, with the hybrid contribution of specific constructs derived from semiotics, critical realism and more. Even further in terms of epistemological ambitions, as chapters 2 and 4 will introduce, the combination of Action Research with more structured and structuring tools of futures research, e.g. matrix tools, might enable a reconciliation between "action" and "structure", which might conclusively "presuppose one another" (Giddens, 1979, p.53) towards a possible epistemological synthesis.

SECTION I: BIBLIOGRAPHIC REVIEW
FROM SOCIAL SCIENCES AS EPISTEMOLOGICAL CHALLENGE
TO DESIGN AS AN ACTION METHOD

CHAPTER 2
METHODS OF FUTURES STUDIES AND FORESIGHT

Ancillary question:
What are semantics and examples of methods of futures research?

NAVIGATOR

- to be expected in chapter 2:
  definitions, methods and tools of futures research, with a sketched process foreshadowing (the analysis phase of) High Design.

- references from earlier chapters that enable understanding of the chapter:
  Chapter 1 for epistemology, plus Chapter 4 for High Design (foreshadowing).

- position / role of the chapter in the PhD study overall sequence:
  foundational / theoretical, with examples of methodologies for futures research applications (not related to the primary research performed for this PhD study).

- why the chapter is relevant:
  providing key definitions of futures research and creating key applicative connections across social sciences and business-related consulting (foresight).

- to be expected after this chapter:
  theoretical introduction to "Design".

INTRODUCTION

This Chapter 2 will offer a semantic analysis and a collection of methods of futures research, based on the theories and rationales articulated so far in Chapter 1. This will resonate with the ambition to enable an articulated explanation and operationalization of foresight as potential action-oriented engagement of multiple stakeholders within a normative set of activities, with "visioning" as its key end focus. At a preliminary level we observed in Chapter 1 how "science" is not a territory of absolute and unambiguous statements but a dynamic field itself in perpetual semantic re-definition and movement. This conclusion was reached by looking at social sciences from the perspective of semiotic analysis of *"…systemic, taxonomic, regulated practices"* where the "process" is potentially self-generative of new systems (Greimas, quoted in: Bevolo, Price, 2006, p.6). This "self generativeness" of social sciences, or their potential "autopoiesis", echoes the analysis by Gergen, as well as mirroring potential positions on "Design", herewith foreshadowed and in further chapters introduced. For the purpose of this Chapter, a key focus lies on Action Science, as introduced in Chapter 1. A number of peculiar operational characteristics that characterise this approach, including:

a) Creation of self-reflective communities of inquiry within communities of practice (Friedman, in Reason, Bradbury, Eds., 2001, rep. 2004, p.160);

b) Reflexive nature of the theoretical thinking, with the fieldwork and practice as starting point thereof (Friedman, in Reason, Bradbury, Eds., 2001, rep. 2004, p.160)

c) Mixed interpretation and testing, in an open dialog and transparent availability to all parties involved when it comes to sharing data and insights (Friedman, in Reason, Bradbury, Eds., 2001, rep. 2004, p.161)

d) Creation of alternative scenarios, whereby the status quo is challenged on the basis of shared socio-cultural values within the communities of practices at hand (Friedman, in Reason, Bradbury, Eds., 2001, rep. 2004, p.162).

As presented in the former paragraphs, not excluding those on speculative utopian fiction, a possible ethic drive by "scholars of the future" might imply an ambition, however not actuated, to trigger change by presenting alternative futures with the aspiration to pursue a better world thanks to the visionary articulation of values. This ambition might find additional frustration because of the aforementioned formal status of the future that, just like fictional storytelling or history, requires a *"suspension of disbelief".* In the case of futures research, narrative coherence is enabled by posits and surrogate knowledge, according to critical realism, or by collective generativeness, according to constructivism. As articulated above, in opposition to linear forecast, the field of foresight offers post-positivist output with the formal restriction of *"…knowing a set of possibilities"*, which is of course not the same as aiming at predicting "exactly" what will happen (Bishop, Hines, 2012, p.2). Once again, it should be reiterated how foresight is an agency delivering a set of plausible alternative outcomes, in order to empower stakeholders to take action and make a difference (Bishop, Hines, 2012, p.8), the present being the result of *"trends, events and choices"*, that once were future hypotheses (Bishop, Hines, 2012, 52). Hence, foresight should be seen as positioned beyond positivist forecast, that aimed at defining the "one and only" incontrovertible future, without any context (e.g., by means of technology roadmaps). This Chapter will focus on how futures research can be structured through possible (repeatable) processes and therefore pragmatically operationalized thanks to specific –abductively selected- various combinations of methods and tools. "Visioning" will be introduced as one of the specific processes where these tensions might converge to imagine and describe preferred futures, and their outcomes (Bishop, Hines, 2012, p.55). In general, the theoretical and epistemological points of Chapter 1 and the parameters above should be always kept as a reference in this Chapter 2.

2.1) BUILDING BLOCKS OF FUTURES RESEARCH

A preliminary point of attention to be addressed is the overlap in the use of the terms "methods" and "techniques" within the foresight practice. The "futures domain" was scoped (Kuosa, 2012, p.17) as a combination of "futures studies" (scientific and scholarly knowledge generation) and "foresight" (applied sciences for consulting purposes). In this line, more extensively, the *FOREN report (European Commission Research Directorate General (2001): A Practical Guide to Foresight)* defined "foresight" as follows:

"Foresight is a systematic, participatory, future-intelligence-gathering and medium-to-

long term vision building process aimed at present-day decisions and mobilizing joint actions. Foresight arises from a convergence of trends underlying recent developments in the fields of… "strategic planning" and "future studies". It brings together key agents of change and various sources of knowledge in order to develop strategic visions and anticipatory intelligence (Kuosa, 2012, pp.9–10).

Specifically, although it is appropriate to clarify that there is no universal consensus about this classification *(Dr. Bishop, verbal debriefing by Skype teleconference, 25/03/2013 at 17:00CET)* a differentiation was constructively foreshadowed in Chapter 1 between:

a) "Futures studies"; as the generation of academic and scholarly knowledge according to scientific standards of speculation and thought leadership and:

b) "Foresight"; as the consulting support to strategic decision-making processes, with the purpose to identify futures and consequently establish more robust strategies in the areas of pertinence of its projects.

As anticipated in Chapter 1, presenting the key relevance of "time" and of the socio-cultural perception thereof is one of the first challenges confronting futures researchers is that of the expected validity over time of their work. In the current post-industrial paradigm of fragmented time an optimal scope for future studies remains indicated in the reference of "200 years". In total, with respect to individual dates of birth, based on pure demographics and the generational chain connections between grandparents, e.g. those born 100 years ago, and their grandchildren, e.g. those with one Century of prospect life ahead (Slaughter, 1995, p.144). This *"200 years present"* represents the conventionally accepted span of theoretical validity on which futures studies might concentrate their efforts in terms of understanding the past to anticipate on the future (Slaughter, 1995, p.144). From the *"200 years present"* bundling generations of a century before and a century after the moment of anticipation, to the manageable 2/5 to 20/50 years scope that characterizes consulting projects. In pragmatic terms, it is common practice to work on futures research projects with a much shorter time scope: "*Futures studies operate with a longer time scope (10-50 years), with a visionary approach and a critical approach"* (Kuosa, 2012, p.17). "*Fully-fledged participatory foresight maintains equivalent timeframe and goals, however it operates at grass-roots level, involving stakeholders in strategic decision making..."* In such context, foresight projects seemingly work mostly in the mid-long-range futures (3-15 years) (Kuosa, 2012, p.17). Based on the theoretical notions sketched in Chapter 1, and partially exemplified in its actionable praxis by the selected methods and tools that will follow, *"Foresight"* is primarily concerned with the study of *"…change towards the future"* and the possible, probable and preferable futures created by change as its main focus (Bishop, Hines, 2012, p.1), within a context of highly specialized, yet flexibly hybrid multidisciplinary competences.

In epistemological terms it is important to reiterate that the task of futures studies and foresight is different than the predictive purpose of positivist scientific predictions. This holds true at the level of theory as well as when shifted to consulting applications. A number of different taxonomic "types of futures" of different research nature and applicative use can be identified (Bishop, Hines, 2012, p.42). In principle, excluding "prediction" as such from the portfolio of foresight ambitions, with a resulting shortlist to include (Bishop, Hines, 2012, p.42); (Kuosa, 2012, pp.226 – 227, integrated by specific

elaboration and comment *(Dr. P. Bishop, e-mail communication, 25/04/2013 at 18:41 CET):*

a) possible future, anything that can conceivably happen on the basis of continuous trends and on the basis of continuity and consistency with the natural or behavioral laws (Bishop, Hines, 2012, p.49, 50, 51). This is also the domain of what might happen, including "minority reports" and unlikely scenarios based on *"wild cards", or highly unexpected events and unthinkable developments* (Kuosa, 2012, p.36) that futurists generate as disruptive possibilities on *"what if?"* question basis;

b) probable future, the most likely future development; *"It is expected and relatively predictable assuming nothing surprising happens* (Bishop, Hines, 2012, p.49, 50, 51). It must be specified that the number of scenarios that are "absolutely probable" is rather limited. This because such classification entails more than 50% probability of conversion from being part of a set of hypotheses into effective reality. The term "baseline" is also used to be describe this kind of surprise-free futures (Bishop, Hines, 2012, p.50);

c) plausible future, differentiated alternatives for future developments with reasonable chances to occur, should the most plausible assumptions not come true; *"A plausible futures simulation or alternative futures scenario is based on imagination and speculation, and mostly triggered by an event"* (Bishop, 2012, p.49, 50, 51);

d) preferable future, the most desirable futures based on people's values; "*Preferable futures are triggered by visioning and planning as generated in an empowered mode, defining sets of choices and new plans"* (Bishop, Hines, 2012, p.49, 50, 51), complementing or contradicting aforementioned past plans by setting developmental directions.

To each of these different "perspectives of the future" different sets of tools, techniques and possibilities belong in academic literature and in consulting practice. In order to visually capture in an actionable way the totality of the above scheme with different kinds of futures, from "possible" to "preferred", the *"cone of plausibility",* as based on the work of Charles Taylor, Army War College, is adopted (Bishop, Hines, 2012, p.50) and here below described:

a) the top of the cone represents the one starting point of every futures studies and foresight process, the present;
b) from such point, the cone develops into time, with its sides being defined by the "limits of plausibility" of hypothesis about the future;
c) at the very center of this solid geometry of "plausible futures", the "baseline" defines the expected direction of the future as dictated by trends;
d) around the end point of this "baseline" and within the limits of plausibility, it is possible to identify the area of "alternative futures".
(Bishop, Hines, 2012, p.50)

The baseline might be described as essential to determine the direction and scope of next steps in terms of choices and plans, while, outside of the plausibility footprint at the base of the cone, *"wild cards"* enable the representation of highly unlikely utopias and

dystopias that might be possible in science fiction but not according to the current trends and accumulated data (Kuosa, 2012, p.41). The creation and leveraging of "alternative futures" to define the content of the "plausibility cone" is a key capability in the portfolio of professional futurists, with a strong basis in critical thinking.

2.2) TOWARDS A FUTURES ACTION SCIENCE?

Why were "social movements" analyzed (by selected scholars) as a *"…everyday practice…"* of futures studies? Or at least how might they be generally described as an actionable attempt to consciously pursue change according to socio-cultural values in the making? As elaborated in Chapter 1, references to utopian thinking, to Marxism as praxis of action and to Action Research at the end of that chapter are relevant to define futures research. Within this paragraph, earlier lines of analysis by Gergen, DeCerteau and others, e.g. Giddens, will be cross-referenced with the priorities and the urgencies of Action Research and Action Science, in order to possibly specify an epistemological reference towards the operationalization of a specific future oriented practice thereof. The general hypothesis is based on social movements as a starting point, in the very body of society and its self-generating next change opportunities. A peculiar attention on selected "everyday practices" and grassroots-driven change might be required to further rationalize and leverage, within foresight and strategic projects, the communicative production of meaning by "lay actors", *"…which cannot be grasped simply in terms of lexicon, any more than it can be described within frameworks of formal logic that pay no attention to context-dependence"* (Giddens, 1993, p.25). This is the realm of DeCerteau's practices outside an own proper, or perhaps one might foreshadow the concept of "lifeworld" by Habermas, as the vision of Habermas will be fully introduced in Chapter 4.

While everyday practices and social movements might be "reified" and studied as "inert objects" at the level of positivist social sciences, it seems necessary to re-think them as a possible contextual asset in order to conduct futures research in line with Gergen's "world-making" concept. Some scholars and thought leaders might claim that informal practices are actually key to formal futures research in view of their own peculiar specific lifestyle choices (Slaughter, 1995, p.39). Such approaches might even include re-articulating one's own biography as a source of methodological reference, therefore with a strong personal, a-positivist component in terms of epistemological thinking, as in the case of Slaughter (Ramos, 2003). Within this PhD study, following DeCerteau, "everyday practices" will be likewise considered a potential resource in order to rethink futures research, especially when such practices take place in a collective (urban) context. In this respect, by taking a participatory position, futurists might aim at playing a role embodying Castells' "*…switchers"* in networks, here foreshadowing Castells' theory as presented in Chapter 4. As anticipated above, these reflections on futures research and its actionable nature are not articulated in a vacuum when it comes to the contemporary discourse of "social research", on the contrary they reflect epistemological concerns of universal nature at this peculiar historical moment: *"There are also important socio-political implications in this shift toward inquiry as future making. One of the major problems with the mirroring tradition is that conclusions about existing conditions have little impact on societal wellbeing. This is not only because the forms of discourse shared within the professions are largely unavailable or inaccessible to those outside, but the truth posits of the profession are highly vulnerable to critique on methodological grounds. The laboratory situations created for "testing" general hypotheses are typically remote*

from everyday life. The samples used in Western social science are often faulted as WEIRD (biased in terms of the Western, educated, industrialized, rich, and democratic samples)... Others find traditional research results insensitive to the currents of social change; as it is said, social science research is "journalism in slow motion." In contrast, the significance of a future forming orientation to inquiry doesn't rest on generalized truth posits, so much as active achievements... Social research in a future forming mode unsettles the structure of political power. Researchers themselves become agents of social change". (Gergen, 2014, p.17). It might be concluded as working hypothesis that participation is key. Such hypothesis is also based on historical references and examples of participative methods with deep roots in social sciences. Here, it is possible to refer to "Ethnographic Futures Research", or "anticipatory anthropology" or "cultural futures research": *"Anticipatory Anthropology… is a mode of gathering and using available data, information and knowledge to assess future possibilities… to anticipate or visualize possible alternative future paths for the same culture. To put it in simplest possible terms, Anticipatory Anthropology is a disciplined effort to discover what members of a society want and fear"* (Textor, in: Mead, 2005, p.2). "Anticipatory Anthropology" makes use of all the tools and experiences of the anthropologist, including ethnographic enquiry, yet it focuses on *"soft prediction: broad, approximate, conditional, corrigible and usually focused on the next five to twenty five years"* (Textor, in: Mead, 2005, p.2). It is participatory in its research design as much as it is driven by the urgency to improve societies, as in the vision of Mead (Textor, in: Mead, 2005, p.3). Within these examples, stakeholders are invited to co-assess and co-create *possible, probable and preferable future cultures: once again, the scenario is central to the exploration of the future, in this case being a complex, holistic scenario representing a whole socio-cultural system* (Bell, 1997 – 2003, Vol. I, pp.312-313). From an applicative viewpoint, in recent decades, applications of Ethnographic Futures Research delivered alternative futures images supporting the development of high tech business clusters in Silicon Valley, in Central (Western) Europe and in China. The richness of participatory, co-creative and cultural oriented approaches like Anticipatory Anthropology or Ethnographic Futures Research highlights the urgency to structure both futures studies programs and foresight applicative projects according to collective generative modalities. In particular, specific, manageable and repeatable processes might appear as required, in order to ensure the most efficient and effective structuring of the output of collective creativity streams within boundaries of acceptable formal robustness.

A participatory approach for futures research, in line with constructivist epistemic principles, might be naturally contextualized within the domains of Action Research and Action Science; "…*Participatory judgmental methods represent less formal but still systematic ways of giving estimations of the most probable future, or most viable ways to get a certain objective in the future"* (Kuosa, 2012, pp.24–25). From a methodological viewpoint, "participatory futures" enjoy the elective method of workshop facilitation (Kuosa, 2012, p.19). At the opposite extreme of collective participation, the practice of *"genius forecasting"* is widely diffused in the consulting sector; "*… The most subjective method would be the "genius forecasting", which is strongly connected to intuition, visioning, visualizing…"* (Kuosa, 2012, pp.24– 25). Especially in the design, fashion and aesthetic related fields with recurring cases of strongly biased futurologists, whose work is actually closer to curatorial editing than scientific or participatory foresight (Bevolo, Price, 2006, p.2). *"Genius forecasting"* is also the one touchpoint between the storytelling, literary dimension of the speculative narrators of utopia's and dystopia's through the Centuries on the one hand and the modern scholars and consultants who systematically work on anticipating the future on the other hand. When it comes to

"genius forecasting", it must be added that some authors consider it an immature, almost pathological phase of futures studies (Bevolo, Price, 2006, p.5) purely based on ego-driven curatorial choices, with limited or no formal roots at its foundation.

The above examination leads to yet another key taxonomic distinction that appears as fruitful in analytical terms, when applied to the sub-domain of forecasting; "exploratory forecasting" versus "normative forecasting" (Kuosa, 2012, p.26):

- exploratory forecasting *focuses on what is possible and probable regardless of what is desirable. It tends to rely heavily on mathematical analysis and formal, quantitative trend forecasting, as well as extensive use of probabilistic methods, meaning that it rather suggests alternative outcomes: it begins pre-actively with the present as a starting point, it examines the various ways in which those forces and components may play out, and moves forward to the future, under the implicit assumption that the variables of interest are outside of direct control* (Kuosa, 2012, p.26)*;*

- normative forecasting *is based on norms, values, aims and strategic goals; such goal oriented forecasting tends to take into account an organization's purpose, its mission, and most importantly its future achievements. It starts with a view of possible and desired futures even if not all the variables are under direct control. On the basis of the identified (alternative) futures, necessary actions are defined to attain specific goals, with possible discontinuity versus existing trends and with the adoption of qualitative methods and tools… Normative forecasting is not emotive political arm-waving but a detailed process of elaborate technique usable primarily in organizational or governmental planning* (Kuosa, 2012, p.26)*.*

In this light, yet another question arises, what should be considered as the ultimate deliverable (product) of a normative project (process), based on participatory processes? The answer to such question lies in the foresight practice of "visioning": *"…a vision is the guiding principle in a long term transformational change undertaken by choice. It captures the essence of the preferred future: it is an image of the future. It is a tangible and concrete deliverable that mobilizes stakeholders and triggers change"* (Bishop, Hines, 2012, p.236). In its function within futures studies and foresight, "visioning" can be traced back to Polak's *"The Image of the Future",* as translated and abridged by Boulding in 1973. *"Polak described the capacity to envision the future as a "gradual emancipation process": he noted the importance of a guiding image in helping navigate discontinuities or turbulent times* (Jarratt, 2010, quoted in: Bishop, Hines, 2012, p.238). The relevance of the "image" to these methodological challenges might be rooted in the possibility of activating those *"…affective and aesthetic"* experiential mechanisms that generate cultural change, as anticipated above (Nowotny, Scott, Gibbons, 2001, p.3). Even further; "*It is from Polak's body of work that Robert Jungk brought the practice of visioning in his highly participatory Futures Workshop format* (Bishop, Hines, 2012, p.238). In semantic continuity, it is the practice of social sciences itself that can be described as "ocular centric" hence, strongly focused on visual metaphors starting from closing one's eyes to imagine; *"Given the limits of the mirroring metaphor of research, I return to the issue of consequences. As I have proposed, when research commences with an "object of study" the result is an extension of existing traditions, and suppression of alternative realities. The social imaginary is circumscribed. But, we may ask, what if we suspended the mirror metaphor, and its invitation to study that which captivates the gaze? Metaphorically speaking, what if we closed our eyes and began to imagine the*

worlds of our hopes? What if we replaced the persistent rush to establish "what is the case" and began to ask, "what kind of world could we build"? This would be to place the researcher's values in the forefront of his/her activities. Rather than their latent presence in the choice of terminology and methodology, and in the vain hopes that an absent audience will somehow make use of one's work, what if purposeful and passionate visions supplied the source of inquiry? Given a valued vision of the possible, the challenge for research would be to explore how such a possibility could be realized. The aim of research would not be to illuminate what is, but to create what is to become. Herein lies the essence of a future forming orientation to research" (Gergen, 2014, p.8). To some extent, futures research and foresight aim to address these epistemic challenges, even more so when "Design" comes in the picture. The rationalized classification of "visioning" as foresight method is however achieved by introducing the notion of a verbal articulation structure, therefore shifting from the realm of the visual (e.g., semiotic icons and indexes) back to the dimension of the written word (e.g., semiotic signs in a specific language). From visual to verbal articulation, therefore "*…the essence of visioning is captured in a "vision statement", that should be: compelling, motivating, aligning, transforming and differentiating"* (Bishop, Hines, 2012, p.239). Vision statements are connotative enunciations based on identified, described and shared values, as they suggest and imply the vision rather than describing it in details in a denotative fashion. At the same time, the connotative character of the statement leaves room for individual interpretation (Bishop, Hines, 2012, pp.242–243).

2.3) FROM VISION TO PRACTICE: REVIEW OF FUTURES METHODOLOGIES

Having established the field of epistemological challenges, recalling the Key Research Question and the Central Phenomenon, it can be recalled how the purpose of this PhD study is to describe and discuss a specific design approach in postmodern times, to probe and reflect on its value to envision urban futures. The above line of theoretical and epistemological reflection therefore is functional to providing context and depth to the methodological considerations that will follow, with potential affinity with Design. In this respect, it is the ambition of this Chapter to selectively introduce a number of actual methodologies adopted by futures researchers. The selection was operated foreshadowing what will be relevant in terms of potential continuities between future studies / foresight and High Design. Therefore, it is not the goal to provide an exhaustive overview of all methods and tools available to academics and vocational practitioners. It must be also clarified that these four methodological options, as detailed in the following paragraphs, do not represent the approach for the empirical part of this PhD. The latter will be presented in Chapter 5 and activated by a robust introduction to the empirical section, before Chapters 6, 7 and 8. One must reassert how –within this Chapter 2- the analysis is still in its bibliographic part, and therefore the following review is eminently theoretical, presenting an educated selection among what "in theory", or according to bibliography, is available to futures researchers to attain their operational goals. Pending the introduction of "Design" in the next section, it is therefore appropriate to further elaborate on a set of methods and tools, based on recurrence and reiterated appraisal in the analysis of scholars and authors and foreshadowed consistency with High Design, as it will be possible to verify in Chapter 4.

From an epistemological viewpoint, "Methodology" is firstly defined as the systematic adoption of operational procedures and formal processes for a specific purpose within given principles, referring to; "…*a specific, well-argued theory for how knowledge of*

certain well defined researched themes can be obtained (Kuosa, 2012, p.95). Raunio (1999, quoted in: Kuosa, 2012, p.96) and other scholars describe "…*"methodology" as a meta-level of research, a strategic decision, which remains somewhere between the disciplines or the individual's own world view… hence positioning methodology at a higher strategic level and methodological approaches and research strategies at an operational level,* when specific methods and tools are adopted at project execution level (Kuosa, 2012, p.96). When approaching the "futures domain" from a methodological perspective, two challenges immediately emerge:

a) its methodological hybrid nature in quality and typology of different, sometimes even contradictory, options;
b) its consequent complexity, due to the sheer quantity of specific methods and tools available.

With particular reference to the first issue of quality and typology of methods; "*Although …"scenarios" provide a unity to futurist methodologists, there is considerable diversity in the futures field…"* (Bell, 1997 – 2003, Vol. I, pp.240–241). Consequently, "*Experienced forecasters have learned that both scientific explanation and reliable prediction are best served when several methods are used on the same problem* (Land and Schneider, 1987, quoted in: Bell, 1997–2003, pp.241). This PhD is based on an exclusive qualitative approach, functional to analyze a qualitative future-forming, design-led method. From an epistemological viewpoint, what are the consequences of a choice between qualitative and quantitative methodological options, in terms of the impact on the researcher's ability to fruitfully operate within her "proper"? The distinction between qualitative and quantitative analysis belongs to the specific field of methods and it is therefore here that this dichotomy will be addressed for the purpose of directing the execution of this PhD study.

2.3.1) Qualitative and Quantitative methods and techniques: a choice of approach

From a methodological quality perspective, a necessary point of distinction between quantitative and qualitative techniques is the possibility to leverage a research method in order to study the authentic reality of everyday practices, or not. Such ambition requires methods to flexibly engage in the understanding of those everyday practices based on established yet imprescriptible grammars and vocabularies (as captured in socio-cultural manifestations like media). At the same time, it is vital to trace out different and diverse interests or desires that are neither determined nor captured by the systems, on the contrary, *"…statistical investigation remains virtually ignorant of these trajectories, since it is satisfied with classifying, calculating, and putting into tables the "lexical" units which compose them but to which they cannot be reduced, and with doing this in reference to its own categories and taxonomies, Statistical investigation grasps the material of these practices, but not their form: …The power of its calculations lies in its ability to divide, but it is precisely through this analytic fragmentation that it loses sight of what it claims to seek and to represent"* (DeCerteau, 1984, XVIII)… *Statistics can tell us virtually nothing about the currents in this sea theoretically governed by the institutional frameworks… Statistical study is satisfied with classifying, calculating and tabulating… "lexical" units… and they do it with categories and taxonomies that conform to those of industrial or administrative production*" (DeCerteau, 1984, p.34). This "critique" of statistics and quantitative methodologies by DeCerteau appears relevant with particular relationship to the prospect connection between futures research and "Design Thinking" and to the normative priorities leading to the exploration of an Action Research-oriented praxis.

These lines will be developed further in the following Chapters 3 and 4,

In terms of quantity of methods, the Millennium Project's futures research methodology v.3.0 names and describes 39 future research methods, which can be synthetized in 10 fully fledged methodologies with approximately 30–50 research strategies or methodological principles, and a higher number of applications in the professional practice, possibly reaching the thousand items (Kuosa, 2012, pp.99 - 100). Kuosa provides this estimate on the basis that every methodology exists for one epistemological purpose only, as a particular phase in a cumulative futures process chain (Kuosa, 2012, p.100). With such a sheer proliferation of different methods, at multiple level of epistemological impact, the challenge to somehow classify them arises. For example, a major line of diversification between methods and techniques does exist as based on the adoption of quantitative approaches or the choice for non-statistic principles. Within this PhD study, one of the main interests lies in the attempt to identify formal approaches that might mitigate, if not prevent, the reification of the subject of research into inert object. Therefore, it appeared as appropriate to opt for qualitative methods, avoiding the reification of statistics in view of their nature, as described following DeCerteau above.

2.4) STRUCTURING A POSSIBLE PROCESS OF FUTURES RESEARCH

Shifting from the bibliographic analysis of theory to the bibliographic review of practice, within this paragraph, the urge for an overall possible process approach with modules functional to systematically manage research futures programs and foresight consulting projects will be addressed, foreshadowing the potential continuities with High Design as they might emerge in Chapter 4. At the applicative level it appears appropriate, if not necessary, to define as an efficient and effective notion of working unit: "…*the "futures project" is the largest unit of such professional work, as it includes the sum total of the objectives, the team, the resources and the methods employed in anticipating and influencing the future…"* (Bishop, Hines, Collins, 2007, p.6). With the mutual position of quantitative and qualitative methods clarified above, a first important methodological distinction was made. It is useful for further classification to operate a generic yet universal differentiation in terms of the potential purpose of techniques (Bishop, Hines, Collins, 2007, p.10), with the below classification that does functionally apply to qualitative methods and tools in the general sense (Boerjeson, 2006, quoted in: Bishop, Hines, Collins (2007), p.10):

- Generating techniques, functional *to generating and collecting ideas, knowledge and views regarding some part of the future, consisting of common data gathering techniques such as surveys and workshops* (Boerjeson, 2006, quoted in: Bishop, Hines, Collins (2007), p/10)*;*

- Integrating techniques, functional *to integrating parts into wholes using models based on… probability or relationship* (Boerjeson, 2006, quoted in: Bishop, Hines, Collins (2007), p.10)*;*

- Consistency techniques, functional *to ensuring consistency among different forecasts...* (Boerjeson, 2006, quoted in: Bishop, Hines, Collins (2007), p.10).

This classification was originally discussed by Bishop, Hines, Collins (2007) with sole

reference to the analysis of scenarios. However, the principles described above can be fruitfully extended to qualitative methodologies in general, as a generic reference to the specific function that techniques or tools might play in a given futures research process design. In particular, the "generating" versus "integrating" categories as described above will offer the opportunity to establish a dichotomy for further investigation.

Within each project, the process is key in ensuring methodological appropriateness and operational efficiency/effectiveness; "*The process that one employs in conducting a project is defined as* "the approach": *such process consists of an ordered series of steps to accomplish the objectives of the project: every project has an approach, whether it is explicitly articulated at the beginning or not. Some approaches are widely practiced"* (Bishop, Hines, Collins, 2007, p.6). At best, a process is not only actionable but also repeatable over more projects, just like the experimental method offers repeatability by successful performance of structured events, with the difference that business success is part of the equation when the process pertains consulting. A structural recurrence in the foresight process can be defined as follows:

"It has three distinctive phases: "input", "foresight" and "output"… each phase is more difficult and time consuming, more abstract and less easy to measure than the preceding one. In a successful foresight process, these three phases will result in taking decisions and actions which will be different to those which would have been carried out in absence of the process…" (Horton, 1999, quoted in: Kuosa, 2012, p.7).

A generic, yet more specified process than above, builds upon the above DNA, for a comprehensive foresight project and might include (Bishop, Hines, Collins, 2007, p.7; reiterated in: Bishop, Hines, 2012, p.55):

a) *framing: scoping the project, including both conceptual and organizational elements, with a project plan as end deliverable;*
b) *scanning: collecting information, including history and context of the specific field of futures research, with data and intelligence as end deliverable;*
c) *forecasting: describing the baseline and the alternative futures, with drivers and uncertainties, implications and outcomes, delivering a set of scenarios;*
d) *visioning: envisioning a preferred future of choice, including goal setting and performance measurement;*
e) *planning: designing strategies and plans for prospect implementation;*
f) *acting: communicating the outcome, developing action agendas and institutionalizing strategic thinking and intelligence systems, with an action plan as reference deliverable…*
(Bishop, Hines, Collins, 2007, p.7; reiterated in: Bishop, Hines, 2012, p.55).

There is no prescribed distinction or requirement to run the above steps in linear or cyclical fashion depending on the project and program that is designed and executed at each given time. Taking one further step towards operational implementation and actionable repeatability, it is possible to refer to the QUEST approach: "…*this was developed in the early 1980's by Prof. Burt Nanus and Selwyn Enzer, with the aim to help organizations to assess alternatives and explore their strategic options. The QUEST process is of interest because it provides a flexible, cost-efficient way of involving a small top management team in the exploration of the near-term future without overdue reliance on forecasts or predictions, within precise boundaries and limiting conditions* (Slaughter, 1995, p.78). Steps of the QUEST process include: *a) preparation;*

b) environmental scanning; c) intermediate analysis and report; d) strategic options workshop; e) implementation activities (Slaughter, 1995, p.79). Within the QUEST process, forecast and co-creation are balanced through scenario as focal point of teamwork: "…*QUEST clearly represents a very fluid and adaptable approach to the challenges of organizations: change, complexity, and "turbulence"* (Slaugther, 1995, p.81).

Shifting from the description of "process" as a whole to its distinctive phases, magnifying further into different process sequential components, an environmental scanning phase might be based on cross-referencing a SWOT analysis with a set of relevant external trends. The end deliverable described in bibliographic sources might be a matrix or a set of matrix tools: "…*the matrix provides a systematic picture of the intersection of chosen trends and events"* (Slaughter, 1995, p.79). An operationalized example of a higher level of matrix organization of information (in the practice of scanning) is given by the *"Future Signals Sense-making Framework"* (Kuosa, 2012, p.106). This is a tool designed to capture, in one simple and immediate overview, a number of content elements, namely, starting from the vertical axis, reporting three different levels of futures knowledge (Kuosa, 2012, p.106):

a) weak signals: observations and intuitive feelings of anomalies;
b) drivers: agents that push or pull the change forward;
c) trends: long-term paths of transformation.

The horizontal axis of the Future Signals Sense-making Framework is divided into two main parameters, expressing the quality of continuity and discontinuity in the near future; *"Disrupting the linear"* and *"Promoting the linear"* (Kuosa, 2012, p.106). The integrative relationships of weak signals, drivers and trends with these two parameters enables the generation of three couples of different typologies of "future signals", namely:

a) weak signals: *A1] novel observation disrupting the linear, which might be totally surprising, amusing or annoying to the researcher, and A2] interesting indication confirming the linear, e.g. that a value is increasing or decreasing within an observed phenomenon;*

b) drivers: *B3] pushing drivers disrupting the linear, e.g. political top down decisions, and B4] pulling drivers promoting the linear, arising at grass-roots level from society;*

c) trends: *C5] blockers of change disrupting the linear, e.g. bottlenecks, socio-cultural preconceptions, and C6] change processes promoting the linear, that can be proven on the basis of extrapolation.*

A synthetic tool like the *"Future Signals Sense-making Framework"* enables the categorization and assessment of different types of futures knowledge (Kuosa, 2012, p.105). In applicative terms, it can be used as an interview tool for surveys on a specific topic, hence combining the benefits of generative and integrative techniques within one consistent platform for project applications (Kuosa, 2012, p.107). In general terms, within this example of hypothetic process sketching, the findings captured in matrix cells are the starting point for scenario development. Such scenarios are the trigger of workshop sessions, focusing on strategic options, generated on the basis of "what if?" question and answer cycles, in response to the selected scenarios (Slaughter, 1995, p.80).

The first backbone of the above processes and tools will remain as a reference for the next chapters, specifically foreshadowing Chapter 4 where design processes will be related to futures research. Pending these next elaborations a first synthesis, as based on the above process sketches and their selective relevance based on foreshadowing the structure of the High Design process, will be articulated in the below paragraph.

2.5) SELECTED TOOLS FOR FUTURES RESEARCH

This paragraph will further expand the bibliographic review of existing methodologies and tools for futures research, as based on the theoretical and epistemological mission of this Section I, sketching the hypothetical modules of an ideal process in four specific phases. On the basis of the above descriptions of the methodological field of futures research, a first selection of prominent qualitative approaches to conduct projects in this domain was operated, with reference to recurrence in literature and relevance in specific appraisal by multiple authors and scholars. In particular, the following criteria were adopted, as based on the epistemological background of this PhD and once again on the requirement to foreshadow High Design (Chapter 4):

a) qualitative focus, as based on the above rationale, as articulated and provided within this Chapter;
b) hybrid flexibility, in order to sustain an inclusive function within the context of multidisciplinary practices;
c) action-focus, in order to possibly support the conversion of research into social change.

The qualitative focus responds to the very precise choice to engage with qualitative social sciences only. This choice was articulated above. Also, the ambition is to establish a potential bridge with the qualitative nature of High Design. Hybrid flexibility responds to the multidisciplinary nature of High Design and it also derives from the relative short existence and the actual complexity of futures research, as eloquently presented above. Lastly, the action-focus responds to the very priority of this PhD study, as specified through the reference to Gergen, Slaughter and further sources to come in the following chapters. These criteria were pre-emptively modeled on selected characteristics of Design Thinking, to be also introduced in Chapter 4. The following qualitative methods and tools supporting futures studies programs and foresight projects are presented in terms of most effective sequence and mutual position within a possible “optimal” futures research process:

- “Monitoring” is an analytical approach aimed at gathering intelligence over time with specific focus but also at more generalist level. In the analysis below, it will be addressed in terms of “scanning” methods and techniques plus the specific “wild card” tool, in order to clarify how this kind of research approach might generate knowledge to support futures explorations;

- “Delphi Method” is a knowledge-generation approach based on structured or semi-structured survey research through expert interview design and performance. This method is a specific asset in the portfolio of futures researchers developed by futurists between the 1950’s and the 1960’s, and now at methodological state of maturity. It is herewith introduced for purpose of

exemplification only, in terms of a potential approach to structurally gather and process information. In parallel, "Interviewing" will also be introduced for further referencing, as a different approach to gather data;

- "Workshop Design and Management" is a design and facilitation technique aimed at regulating teamwork in dedicated sessions, with the objective to generate a shared space of negotiation for the co-creation of ideas, concepts and solution sketches through a process of communal understanding and mutual acknowledgement across different and diverse stakeholders;

- "Scenario" is a knowledge-activation and dissemination format, aimed at communicating and sharing possible, probable, preferable, utopian or dystopian futures through narrative structures and storytelling, by leveraging literary, rhetorical and expressive capabilities in the non-fictional context of a research program or project.

It must be reiterated that the above tools will not constitute the empirical corpus to analyze data for Chapters 6 through 8 as they represent a selective section of what social scientists adopt to study the future, not being linked in whatsoever fashion to the specific Grounded Theory methodology of this PhD study. Furthermore, the above four modules represent potential tools for futures research as identified and described below, from the viewpoint of bibliography grounded in social sciences. By means of such selection it is possible to appreciate how social sciences might supply their own validated and widely adopted methods, perfectly adhering to epistemological frameworks, to a hypothetically optimized process foreshadowing High Design. Further dissection of the four methodological references above will be presented in separate sub-paragraphs as these techniques are not yet bound, at this stage of the study, in one process or any further mutual relationship beyond the above generic characterization.

2.5.1) Monitoring (generating approach)

"Monitoring is a methodological procedure that aims to assess events in process as they occur or as soon after they occur as possible" (Bell, 1997 – 2003, Vol. I, p.290). In literature, the "monitoring" domain is extended to reactions to the observed events or trends (Bell, 1997 – 2003, Vol. I, p.291). A specific approach to monitoring is defined as "environmental scanning" (Gordon and Glenn, 2009, quoted in: Kuosa, 2012, p.102) that is positioned at the beginning of the foresight project (Schultz, 2008, quoted in: Kuosa, 2012, p.103). It is an explicit choice within the present study to focus on scanning and tracking components of monitoring. There are a number of possible sources that might provide input to the environmental scanning process (Kuosa, 2012, p.102 – 103):

a) expert panels, possibly playing an equivalent role as Interviewing or even Delphi;
b) database reviews and alarming database early warnings;
c) websites and other sources of generalist press, including fiction or other hybrid publications;
d) academia and scholarly publications, including expert essays;
e) key expert direct monitoring and tracking, including event attendance and networking, possibly leading to contribution to expert panels as per point a).

The focus of environmental scanning can converge on trends, drivers or weak signals to be analyzed and evaluated by means of qualitative impact assessment techniques,

leading to the development of conceptual elements for scenario design (Kuosa, 2012, pp.103 – 104). Examples of monitoring-based trend analysis from the consulting world include publications and massively distributed books, e.g. John Naisbitt's *"Megatrends"* series or Naisbitt's commercially popular yet scholarly criticized "Top Ten" technique (Cornish, 2004, p.143). As well as the market where fashion companies, marketing boutique studios and "genius forecasting" individuals operate on aesthetics, design and popular culture, as negatively appraised, among others, by journalist and opinion maker, Naomi Klein (Kuosa, 2012, p.52). *"Trend detectors"* (Kuosa, 2012, p.53) have been increasingly hired since the 1990's either as direct staff or as outsourced consulting capability within more sectors, beyond fashion and cosmetics. Consumer electronics, mobile communication, digital corporations and any other enterprise that mission-critically need to anticipate consumers' volatile taste, especially in business domains related to lifestyle and driven by aesthetics: "*For instance, Nokia uses anthropologists for observing people and their lifestyles in parks, streets and shopping malls; the observers are required to identify early information about… individual value systems, key drivers of customers… By synthetizing this information at an early stage, there is a better chance of the mobile phone company being prepared for emerging… consumer needs"* (Kuosa, 2012, p.53). Within some specific corporations, this typology of futures research can be organized according to a mature, sophisticated organizational model, as in the case of Philips: "*CultureScan, focuses its research on the analysis of emerging aesthetics, communication codes and behaviors in Asia Pacific, Europe and USA. Research findings are based on the careful monitoring of the most recent developments in the worlds of art, fashion, interior and automotive design, architecture, cinema, communication, new media, pop music and food. Each of these areas is regarded as a pillar in the global cultural landscape; a source in the investigation of cultural shifts and paradigms changes from 6 to 24 months. For each pillar, dedicated guidelines, based on research into literature and expert interviews, are defined and reviewed annually. In addition, throughout the year, a global team of Philips Design internal trend scouts monitors and promptly reports the most relevant cutting edge "weak signals" (manifestations) within each of these pillars"* (Vissers, 2005, p.4). "Weak signals" are potential deliverables of scanning processes as structured within the larger capability of trend research operating in large enterprises. At the same time, "weak signals" might offer the best opportunity to generate *"wild cards"* for the purpose of disruptive scenario generation in futures workshops, as will be articulated in the next sub-paragraphs.

The notions of "weak signal" and wild card, the latter introduced above, deserve peculiar attention in the above context of shorter term scanning and monitoring, this is however a problematic concept to contextualize in terms of a formal methodology: *"The concept of weak signals refers to observations of the surrounding world which someone has subjectively reasoned to have some special foresight value. It should be noticed that there are many ontological and epistemological problems in the theory of weak signals analysis. Therefore, the value of one single signal should not be overemphasized in foresight. The reasoning of emergence of a certain issue requires clustering of many different types of signal"* (Kuosa, 2012, p.94, Footnote 23). In this respect, upon execution of a futures research project, the functional sub-division of a wider domain in specific research pillars and the cross-referencing of any derived findings might offer a potential formal structure to (partially) mitigate the impossibility to reduce the practice of scanning to any "inert proper", as positivist principles would demand. In this context, the role of individual researchers and their individual capability is key; *"A weak or early signal of change is… a discrepancy in the pattern… it could develop into a major change with important consequences for a domain or an organization… what counts as a*

scanning hit depends on what the person already knows and expects to happen… Scanners therefore are sensors comparing new items on the horizon with their knowledge and experience… Thus scanning is inherently subjective, making it very hard to teach or practice with any degree of repeatability" (Bishop, Hines, 2012, p.180). Within the activity of scanning, with particular reference to "weak signals", it is possible to identify an epistemological point of sensibility within the entire domain of futures research. On the one hand, one might conclude that the practice of identifying "weak signals" is closer to an art than to a scientific praxis. On the other hand, key investors in futures research and foresight like the aforementioned Nokia or Philips, and their consultants, make a major effort to create a systematic, repeatable, validated approach to justify and validate the work of their forecasters. When it comes to this specific "scanning-and-reporting" approach, one might conclude, in line with DeCerteau: *"To make people believe is to make them act"* (DeCerteau, 1984, p.148).

2.5.2 Delphi Method (generating approach)

In order to specifically clarify the role of Delphi in this elaboration, it appears therefore appropriate to exceptionally foreshadow that the specific city.people.light case will be probed in terms of its data gathering research moment; *"The Delphi Method was first engineered by the researchers at RAND in 1953 and fine-tuned for the next decade. It is a variation of survey analysis that involves repetitive questioning of respondents, sometimes referred to as "the panel method"* (Glock, 1955, quoted in: Bell, 1997 – 2003, Vol. I, p.261). Deriving its name from the ancient oracle, the Delphi Method is structured according to a rigorous process divided in precise building blocks, including a series of rounds where questions are re-iterated in different order, with the purpose of gathering the consolidated opinions and the *"collective judgments"* of decision makers and experts on the topic at hand (Cornish, 2004, p.67): "*Delphi researchers aim to predict and explore alternative future possibilities, their probabilities of occurrence, and their desirability by tapping the expertise of respondents. Moreover, nearly all Delphi studies are action-oriented with the results aimed at affecting the actions or thoughts of decision makers"* (Scheele, 1975, quoted in: Bell, 1997 – 2003, Vol. I, p.262).

Within this PhD study, the Delphi approach is mentioned purely as an example of knowledge generation by means of systematic and structured dialog loops with experts. From a pragmatic viewpoint, sourcing, reaching and maintaining a network with the best thought leaders might constitute the fundament of an important consulting asset. In this respect, networking is a collateral yet relevant capability to be integrated in the portfolio of futures researchers (Bevolo, Price, 2006, p.10). It might be therefore observed that the Delphi Method actually requires skills beyond plain research design, also in terms of communication, contacting and managing the relationship with experts in the field, hence in networking terms. One might see the networking with experts implied by monitoring, as described above, to be actually complementary and synergetic with the necessary enabling conditions in Delphi research procedures. It must be clearly reiterated that the Delphi is a very specific method of collecting estimates of future possibilities from individual experts in a given field. It is not a general approach for generating new information like an unstructured interview would. At the other extreme point of a possible data gathering methodological spectrum, destructured qualitative interviews lie, where skills and practices might converge into research projects from journalistic practice (Bevolo, 2009, p.13-14).

2.5.3) Workshop Design and Management (integrating approach)

The first two methodologies reviewed so far focus on "generating knowledge" and insights at the level of analysis. In essence, they are among the approaches to generate research findings that will constitute the foundation for futures researchers to engage in their explorations. At the level of integrating knowledge, as already mentioned in the QUEST process, among others, the workshop format is extensively adopted: *"…at the highest level of abstraction, future workshops aim to invent new social institutions, to find new non-violent methods of bringing about beneficial changes, to consider new goals and values, and to build a creative, participatory society"* (Jungk and Muellert, 1987, quoted in: Bell, 1997–2003, Vol. I, p.301). In more functional fashion, workshops can be deployed as "integrating knowledge" activities throughout an entire process of futures research or foresight consulting. In the QUEST context, for example, there are two moments focusing on workshop facilitated interaction:

a) the "strategic planning workshop", identifying external trends and integrating them in the specific customer context;
b) the "strategic options workshop", leveraging scenarios to explore alternative futures (Slaughter, 1995, pp.79–80).

Further than the above binary option, more formats might be identified in bibliographic sources: *"Dator (James Dator) has been head of Hawaii Alternative Futures Master's in Political Science since the 1970's. He has devised a two-day visioning workshop that could be characterized as bottom up approach. He asks participants to arrive with a personal vision of the topic in question… he includes experts or VIP's and he plays a facilitative role that relies on keeping the process (not getting too deep into the content). He shows sample visions. Participants share their personal visions… The small groups report to plenary in order to learn from one another, including walkabouts to see preliminary visions… the large group agrees on the key components and a smaller team then writes the vision, which is approved by the core team* (Bishop, Hines, 2012, pp.246–247). How might input from generating techniques, e.g. environmental scanning, be integrated in actionable ways within the design of a workshop format? For example, the outcome of a specific thread from scanning might play a key role when adopted as input to inspire a futures workshop session. Scanners might provide their aforementioned *"wild cards",* namely reporting on: *"…low probability, high-impact events that have significant consequences"* (Bishop, Hines, 2012, p.179). As described above, wild cards are *"system breaks" that regularly confound forecasting and prediction* (Slaughter, 1995, p.82): *they fully meet the Hudson Institute's principles and Kahn's approach to "think the unthinkable", no matter how unconventional or inconsistent with conventional wisdom* (Dickson, 1972, quoted in: Bell, 1997– 2003, Vol. I, p.32). In a futures workshop setting, Wild Cards might provoke alternative thinking by surprising participants and shocking them into a creative reaction, or they might generate inspiring and thought-changing scenarios as part of the final outcome.

2.5.4) Scenarios (hybrid: integrating and consistency approach)

Scenarios are narrative structures where storytelling is paramount, vividly depicting future realities. They parallel those stories that every human naturally creates to rationalize the past and the present towards the future, and in this perspective they might be seen as paralleling "…*what Swedish neurobiologist David Ingvar defined as "…memories of the future"…"* (Schwartz, 1991–1996, p.32). Here, the ability to develop

fictional content triggering the aforementioned mechanism of *"suspension of disbelief"* plays a key role as an enabling function. Workshops are the context where the seeds of scenario, mostly, get planted to grow into projects (Van der Heijden, 2005, p.226). However there is much more to scenarios than being plain deliverables of workshops. Just as one example, scenarios can manage to correlate fundamental elements of futures explorations like *"…critical uncertainty" (or "scenario dimensions", if part of a matrix: …labeling a dimension of the situation that emerges from a prioritizing process as most important and most uncertain) or "driving forces" (environmental factors driving a possible outcome of a critical uncertainty, with high level of explanatory power in the context)* (Van der Heijden, 2005, p.227). Scenarios are generally classified according to the context of their project of reference, be it "normative" or "exploratory". Scenarios as a narrative format actually offer flexibility to be leveraged according to the *"mixed scenario approach": this is a research strategy where exploratory scenarios are adopted in the course of a project: …this approach follows the idea that in reality we always have some background information of the theme before we start any research, and thus we always do have some work hypothesis, which affects the organization of our work: …in most cases, we mix normative visioning with other type of explorative work"* (Kuosa, 2012, p.127).

Different narrative outcomes, as mapped according to their divergence and different techniques generating content, as listed according to their typology, might provide an indication of the variety of options in scenario writing and the potential complexity thereof. They however, are not sufficient to establish an operational approach to scenario writing, for which a number of feasibility reference parameters are required. For example, identifying a structure and the common thread across the overload of data that will enable the conversion of research findings into scenarios can be seen yet again as an "artistic task", coming close to pattern recognition in fine arts (Van der Heijden, 2005, pp.224 – 225). The structuring of scenarios can further benefit from the two main organizing principles of knowledge generation. The aforementioned inductive method and deductive method plus the *abduction* principle as third approach of peculiar relevance for futures research, as described in Chapter 1:

a) The inductive principle sees the research team start from description of single events and drafting of various sketches, to then elaborate them in a time sequence. This might lead to a problematic development in terms of coherence and consistency as the different parts might not consistently fall into the right place to enable a harmonious overview across each single scenario. Hence, the need for a stronger facilitation and the ability to collate single fragments, or "snippets", into larger narratives that should not be simplified into good/bad basics (Ven der Heijden, 2005, pp.236 – 237 – 238 – 239);

b) On the other hand, "…*deduction is a process by which specific a conclusion logically and necessarily follows from a set of general premises, reasoning from the general to the specific"* (Van der Heijden, 2005, p.242). Within the deductive approach an overall structure is first defined as the reference framework, to group data and to identify mutually independent findings from research (events, trends and drivers). Ranking of these elements and selection accordingly determines the initial structuring dimensions for scenario creation (Van der Heijden, 2005, p.243);

c) As a third option, to close the loop and re-connect to the epistemological notes of

Chapter 1, it should be observed how the alternative approach of aforementioned "*abduction*" enables to channel within rationalized processes what appears as irrational input, e.g. everyday practices and the observation thereof. Because *"rationality is conceivable only on the basis of rule following"* (Fischer, 2001, p.12), abductive inferences are the formal devices to "*violate logical laws, yet they may be interpreted as creative changes of the semantic content of concepts or conceptual systems… There is no absolute standard for the rationality of thought and action, but only a relational one"* (Fischer, 2001, p.13).

In continuity with the above references to matrix tool analysis, a particular case of relevance for this study within the scenario method is the "Matrix Approach". Once again involving the adoption of this kind of tool, where the correlation of critical uncertainties leads to a number of inter-relating Scenario Dimensions, "…*that are significantly spread out and different from each other"* (Van der Heijden, 2005, p.247). The basis of such uncertainties may vary, for example; being referred to trend extrapolation ("minority reports") or trend reversals, potential events (e.g., once again, wild cards), new ideas or merging issues (Bishop, Hines, 2012, pp.217 – 218): "…*the natural choice for scenario dimensions to populate the vertical and the horizontal axis of the matrix are driving forces with high impact and high uncertainty, therefore with most impact and least predictability".* (Van der Heijden, 2005, p.248). The introduction of the matrix as a tool, already anticipated above with the Future Sense-Making Matrix formalized in the bibliographic sources by Kuosa, combined with creative writing and wild cards, enables therefore an optimal dialog between rational framework management and intuitive cross-fertilization of data and insights, enabling creativity within consistency across the output of futures research and foresight projects.

2.6) THE POTENTIAL OF THE VISUAL

Concluding this bibliographic review of futures research, from epistemology to tools it is possible to recall Gergen: *"…theory determines what count as data. Putting aside the extremities of these positions (e.g. naïve empiricism vs. linguistic reductionism), there is one way of phrasing the issue about which most social scientists would agree. That is, whatever we take to be the world does not demand or require any particular form of representation (e.g. utterances, markings, movements, signals, or graphics). At its most banal, this is simply to point out that there are many different ways to describe or otherwise represent whatever is before us"* (Gergen, 2014, p.3). In this perspective, it is possible to once again refer to the historical generation of images of the future, as F.L. Polak did in his seminal work (Bell, 1997 – 2003, Vol. I, p.239): "…*his classic 1973 book: "The Image of the Future" described the capacity to envision the future as a "gradual emancipation process"* (Bishop, Hines, 2012, p.238), hence establishing a precursor of "visioning". Beyond visioning and visualization, *the role of the "senses" in "knowing" is an alternative reference to be considered... The "senses" connect to the interior world of images, meanings and concepts* (Slaughter, 1995, p.158). The role of the visual and the power of visualizations, beyond aesthetic experiences, but being channeled by sensorial processes of perception were reiterated and consolidated in various references and quotes. These issues have been introduced at various moments and in various points of this manuscript so far, this paragraph is just an editorial point where they find their explicit statement as key topics in the context of the entire PhD study. They will be crucial to link futures research with Design, as extensively performed in Chapter 4.

CONCLUSIVE NOTE

Based on the “potential of the visual”, as introduced in various points of these first two chapters and framed in the last paragraph above, there appears to be an opportunity to continue expanding the field of investigation of futures research to a new domain; that of “Design”. In order to do so, “Design” as research praxis that identifies, defines and ultimately generates the relationships between humans and their experiences requires due reflection, to be then connected with the challenges of futures research. It will be the specific task of the next two chapters on “Design” to firstly present a theoretical framework to practices based on the creation of images and the enabling of experiences, by design, to then re-contextualize “design” in general terms as an approach to futures research by visionary power and visualization-based experiential techniques. In Chapter 3, the analysis will eminently focus on design theory, and how design emerged within human history, as yet introduced in this PhD study. In Chapter 4, in order to wrap up this entire bibliographic section, it will be possible to describe an existing, repeatable process to generate urban futures scenarios through matrixes, elaborating research data into storytelling-based narratives with appeal and impact. High Design will presented by mirroring the above sequential module steps of monitoring and integrating findings through workshop design and facilitation, In synthesis, leveraging what is presented so far, it will be possible, in Chapter 4, to specify High Design as a research-based, future knowledge generative process. In this respect, this Chapter focused on the transition from pure theory to methodological challenges of futures research and selected tools. Identifying four specific modules to operationally structure procedures of exploration and foresight; Monitoring, Interviewing, Workshop Management and Scenario Planning. The relevance of this specific conceptual operation lies within the foreshadowing of High Design, hence offering a social sciences-related foundation, although selective, to the constituents of High Design as they will be specified in Chapter 3.

SECTION I: BIBLIOGRAPHIC REVIEW
FROM SOCIAL SCIENCES AS EPISTEMOLOGICAL CHALLENGE
TO DESIGN AS AN ACTION METHOD

CHAPTER 3:
DESIGN THEORY:
FROM DESIGN SEMANTICS TO URBAN FUTURES

Ancillary Question:
What is "design" in theory, what might it mean in the urban / futures context?

NAVIGATOR

- to be expected in chapter 3:
  historical, economic, semantic review of "Design", with reference to "futures" and "urban" contexts, foreshadowing High Design.

- references from earlier chapters that enable understanding of the chapter:
  Chapter 1 for epistemology, plus Chapter 4 for High Design (foreshadowing).

- position / role of the chapter in the PhD study overall sequence:
  foundational / theoretical.

- why the chapter is relevant:
  providing key definitions of "Design" and creating key epistemological connections across social sciences, design and futures research.

- to be expected after this chapter:
  bibliographic introduction to High Design.

INTRODUCTION

The working hypothesis implied in this PhD study is that "Design" can be identified and described as a postmodern, multidisciplinary approach, one integrating and/or complementing social sciences research capabilities in the generation and processing of knowledge, namely in envisioning city futures. As it has not been introduced yet, in the earlier introductions and chapters, and after exploring the epistemology and methodologies of futures research it appears appropriate to now bibliographically examine "Design" from various viewpoints. In order to identify its possible roots, definitions and meanings, a multidisciplinary view was chosen. Such examination will inform this PhD study with a necessary solid foundation for its key constituency, "Design". The latter will be articulated, both as a standalone notion as well as in relationship with futures research and urban futures. As the PhD is still in its theory-focused, bibliographically based Section I, this Chapter 3 will focus on the necessary preliminary clarification of how generic "Design" can be historically and theoretically articulated. Chapter 4 will instead offer the point of synthesis for these different streams; futures, design, cities and by integrating selective theoretical elements of the first chapters, including this one, into the description of High Design. The focus of Chapter 3 will be on bibliographic reflections of philosophical, political, economic and semantic nature aiming at answering the specific question: *"What is design?"* - keeping the

analysis in the contexts of social research, futures studies and cities and starting from the very end of Chapter 2. There, the importance of the image, of the visual and of visualization processes was introduced in the context of futures research. As based on the epistemological framework provided in the previous section it has been assessed that; *"…at the social level, the right image acts as a cultural force to bring new projects to fruition… especially after the collapse of the grand visions of the 20th Century"* (Slaughter, 1995, pp.86– 87). Connecting social sciences and the visual, since the end of the 1960's, the study of culture through the analysis of visual materials, as formalized by John Collier and Naomi Togashi, among others enabled the inclusion of the non-verbalized factors. Eminently, visual elements in an effort of synthesis towards connecting the sensible world of experiences to the deeper motivation of humans. This resulted in the rise of whole new sub-sectors of social sciences like visual ethnography (Harper, 2012, pp.8–10) and the re-thinking of key economic phenomena like "consumption", and the related cultural research thereof, from a "visual" and symbolic perspective (Schroeder, 2002, p.11). However methodologically innovative these experimental developments might be, Gergen's concerns (2014) regarding the extension of the domain of social sciences might be partially valid as the perspective remains ocular-centric. At the very center of a world of fabricated, sensorial experiences mediated through image "Design" might be described as an agency where sensorial processes are key. Including, and perhaps predominantly, those involved with visualization. One might think of the entire discipline of identity design, with its expertise on corporate logos and systems, or on the relevant investments made by design centers of corporations on the creation and maintenance of aesthetic roadmaps, based on trend research identifying next developments in sensorial factors like colors, textures and form (Vissers, 2005). This line of analysis would be logical, almost obvious. One of the major points in this chapter will however, be to challenge any notion of "Design" as crafting, visualizing or devising images or plastic solutions. Instead, it is proposed to stretch towards postmodern notions of design.

3.1) DEFINITIONS AND ECONOMIC CONTEXT OF DESIGN

3.1.1) Definitions and Cultural Relevance of "Design" in the City

Similar to futures research, the historical roots of contemporary design and its "discourses" are not based on one unidirectional, simplified narrative. By "discourse" it is herewith specified: "*…an ensemble of notions, ideas, concepts, and categorizations through which meaning is allocated to social and physical phenomena, and which is produced and reproduced in an identifiable set of practices… language really matters. Through language 'some issues are organized into politics while others are organized out' (cf. Schattschneider 1960)…*" (Hajer, 2009, 59-60, quoted in: Hajer, Dassen (Eds.), 2014, p.15). "Design discourses", however articulated according to the given times and place, have to be identified in a variety of different moments of history and at various stages of economic and organizational development depending on the theoretical framework adopted. In his examination of design in Italy, Branzi goes back to Ancient Rome, to radically identify the seeds of "design" in the *"…consecutio spatiorum"* and the interior organization of Ancient Latin towns and homes (Branzi, 1999, p.22). Leonardo Da Vinci is also considered a precursor and ideal "first designer" of human history (Buerdek, 1991-1992, p.15), "Design" as a cultural discourse and economic organizational factor might then even be described as a governing principle presiding the organization of transactions and markets. Such as, in the case of the strategic continuity

and coherence given by the "design discourse" to Italian enterprise success in global markets in the second half of the XX Century (Casciani, Di Pietrantonio (Eds.), 1991, p.5). Scholars and practitioners indicate the contemporary notion of "design" as emerging at the time of an increasing impact of industrial modernity on society. For example, John Ruskin's intellectual work on ornament and architecture in the XIX Century is identified as a key departing point of modern design (Pevsner, 1936 – 2005, p.13) in its combination of theory and application. Likewise, Dorfles situates the birth of industrial design at the same time of the birth of machine-based production, as it is not possible to speak of design in absence of such a mass-market production backbone (Dorfles, 1963, 1972, p.15). In its industrial, pre-digital sense, "Design" could be identified as the theoretical and applicative field addressing products, and their grammars, including all those "man-product" relationships that are transmitted through the senses. A peculiar discriminator in defining "Design" is indeed the focus on "form". The "Design Thinking" specific discourse represents the attempt to move beyond the dichotomy "aesthetic expression versus functional content", de facto refusing the plain simplification of functions into literal plastic or visual translations without any degree of aesthetic autonomy, as engineers or technicians might probably privilege on the basis of sole pragmatism (Van Onck, 1994, XVII): *"Design Thinking and design action should be the proper antidotes to fatalistic handwriting when it comes to technology's grim externalities and potentials for deliberate abuse"* (Sterling, 2005, p.13). In this sense, it is possible to report a challenging definition of what "Design" is and does at the same time; *"People wishing to talk about design, or more specifically about what design does, very often start with the definition Herbert Simon gives in his book '*The Sciences of the Artificial'*. He writes that 'design is concerned with how things ought to be-they ought to be in order to attain goals and to function'. The most immediate and common interpretation of this statement links the concept of design to that of the solution to problems and sees design as a* problem solver*, an agent for solving problems at all levels, from those in everyday life to those on global scale. This interpretation of what design can do, tough important and widely expressed, is not the only one: we can also talk about design while moving away from this approach, oriented towards problems to solve, and focus on a definition that highlights its role in the field of culture, and therefore of language and meaning".* (Manzini, 2015, pp.33-34). From a sociological viewpoint, design responds, through aesthetics among others, to its specific cultural context at any given time. Its society and culture are mirrored while they determine the functions, roles and self-perception of design and designers. For example, the codified social responsibility and political impact of a Soviet Union designer or a fascist architect in the 1930's were ideologically different than what was expected from an automotive corporate designer in Detroit in the 1960's or Turin in the 2010's; or what defines a freelance digital code writer in contemporary California. Nevertheless, they all did or do professionally perform "design", at a specific moment in time, sharing variations of the same fundamental "discourse" of applied creativity to respond to specific functional, aesthetic and societal challenges.

Since the rise of Modernity first and then mass consumption, the relevance of products, images and signs led to a focus on visual assets and spatial organization, either strategically dictated by institutions or metaphorically re-possessed by everyday actors (DeCerteau, 1984, p.116). For example, since the 1950's such repossession happened in alternative leisure networks and youth subcultures. The latter is feasible because a postmodern governance framework based on economic principles includes the possibility to express constraints and stimuli from the socio-cultural leading classes or individuals and to react against them with antagonist discourses. Theater *par excellence*

of these visual representations is the city, as the natural crossroads where *"…processes of meaning-making"* (Slaughter, 1995, p.133) anticipate the future by cradling new lifestyles and intellectual leadership (Bevolo, Gofman, Moskowitz, 2011, 169). An example of these dynamics is the *"café culture"* as a staged manifestation, designed experience and spatial organization of the (urban) semi-public sphere. Such *"café culture"* has characterized the emancipatory potential of new ideas (during the Enlightenment) as well as contemporary lifestyles (e.g., mobile work venues for nomadic digital generations, or "hipsters"), via intermediate pop culture examples (like Starbucks or TV icons like 1990's *"Friends"*). Since its inception, this spatio-societal context has always expressed those relationships of power and symbolic structures holding a (urban) society from a next "great leap forward" (from gender discrimination in the 1700's to the intrinsic contradictions caused by gentrification or globalized consumption rituals nowadays), displaying the evolving power of deeper socio-cultural forces at play (Varnelis, Friedberg, 2008, pp.16–17). A simple urban experience like a coffee in an ordinary chain store is therefore a moment of precise semiotic significance that incorporates the very notion of "design" as spatial organization, system of signs and codes, and a plastic translation of social hierarchies and cultural conventions, at a given moment in time. It is even possible to formulate a specific departing point within this chapter in order to focus on the city, namely on its *"…proliferation of aleatory and indeterminable manipulations within an immense framework of socioeconomic constraints"* (De Certeau, 1984, p.41). In this perspective, urban space might be read as *"…a texture of practices resulting in the continuity of a "…proper place" for people…",* or *"…the future of a great city"* (DeCerteau, 1984, p.41). Within such continuity and in pursuit of such futures, "Design" is a protagonist of modern, post-modern and contemporary cities in terms of cultural economy (Knox, 2011, pp.42–43). From this cultural analysis the attempt of identifying a unified definition of "urban design", results in plain frustration; *"The absence of a simple definition* [NOTE: of what urban design is] *remains a conceptual hurdle for some. How, they ask, can any enterprise perform its fundamental role, much less gain broad social status and responsibilities without being able to explicitly describe its essential purpose? There is considerable skepticism… about the very possibility of "designing" cities or substantial parts of them"* (Krieger, Saunders, Eds., 2009, viii). Having established a preliminary awareness of the complexity of the "urban design" context, further sociological analysis of *"what is design"* will continue from economic context and commercial value, to then move into the territory of political and semantic considerations.

3.1.2) Economic Context and Societal Relevance of "Design" in Commerce

It is inevitable to start any socio-economic analysis of the role of "design" within postmodern commercial cycles from the contemporary detachment of finance from production and of "market" from "place" (Zukin, 1993, p.5). In a socio-cultural and economic context dominated by *"…abstract market forces that detach people from social institutions"* (Zukin, 1993, p.4), "design" as a company asset or brand differentiator has been largely adopted as a resource and a competence for business performance based on a superior aesthetic and semantic delivery to customers and their opinion influencers (Bevolo, Gofman, Moskowitz, 2011, p.17). Historically, transactions (e.g., like the exchange of hand manufactured objects, with and without commercial return) primarily took place at the geographical heart of cities, in their very socio-cultural and spatial center; the "market". The market represented, for centuries, what Sharon Zukin defined as a *"…socially constructed place…"* and a *"…culturally inscribed limit…"* (Zukin, 1993, p.6), offering the urban interaction and exchange space for proliferation of commerce

and circulation of ideas. In the pre-industrial past, one might say that city markets and urban culture were one, as spatial organization and social interaction were fully integrated in the design of city squares. The current divide of financial markets and urban territories sets the stage for the performance, the purpose and the potential evolutions of design following the evolution of production processes. Once focused on the domestic fireplace, since the start of the industrial age, the "organization of labor" evolved in time as a necessary parallel for the conceptual elaboration of the economic context of design, as much as a "market" is. As seen from a design perspective, the evolution of the "factory floor" in the history of *"homo faber"* (Flusser, 1999, p.43) offers a blueprint to understand deeper relationships between man and society, between man and technology, between man and identity. Production sites spatially evolved from the pre-historical settings, where pottery was created by hands and artisanal objects were created by means of simple tools, to the modern factory of machines and the post-modern factory of automated and digitalized processes or robots. (Flusser, 1999, pp.44 – 45 – 46). The evolution of the workplace entails the evolution of humans towards a potential age of networked connectivity and intellectual progress (Flusser, 1999, pp.48–49). With the emergence of modernity, since the French revolution, pre-modern conditions including :(adapted from: Zukin, 1993, p.7):

a) the existence of "market" as a "(urban) place" and
b) an organic production in artisanal homes around personalized tools;

were gradually replaced by:

c) new notions of increasingly (spatially diffused) commercial distribution and
d) a rigidly structured division of labor around standardized machines.

This parallel evolution led to the contemporary emergence of an increasingly virtual "market space". Matched in the last two decades by Computer Aided Design (CAD) and outsourced assembly lines. This is a world organized according to own time management requirements ("timeless time") and own (digital) network rules and protocols (Castells, 2012, p.6). In this new context, "design" itself required deep re-thinking, to transform and perform in the transition from mass-product to digital networks and their interfaces at each human touchpoint (Bonsiepe, 1993 – 1995, pp.20, 21). As a result the place, once a "proper" for a cultural or economic specificity, evolved into merely being *"…a palimpsest"* (DeCerteau, 1984, 202) within an economy focusing on symbolic transactions of signs, where the city can be interpreted as a *"…semiosphere"* (Fry, 2011, p.77).

This historical process of disentanglement as described above is key in determining a gap in semiotic terms between products and people. Within this context, the economic sphere itself gradually developed into a semiotic system of signs where meaning and value are closely interlinked through the (visual) taxonomies that determine what products and services can be labeled as "premium" (Bevolo, Gofman, Moskowitz, 2011, pp.13–14–15). Or a *"…semeiocracy"* (DeCerteau, 1984, xxi), as defined by DeCerteau. As a primary agency of semantic formation for experiential symbols and signs "design", as a practice and as a semiotic field can therefore be defined as a primary function of the economic context. Here, it plays a role within the specific political framework supporting consumption of mass produced manufactured goods. "Design" as a trigger of people's experiences and perceptions might therefore be analyzed as one of the agencies contributing to the semiotic taxonomy of *"…things as the physical*

manifestation of mass psychology" (Sudjic, 2008 pp., 9–6). Possibly leading, in an age of abundance, to fetishizing objects into a conceptually pornographic system of classification and trade (Sudjic, 2008, pp.9– 6). As an accessory of marketing, "design" might then be seen as one of the most effective engines of the neo-liberist utopia/dystopia of endless growth, e.g. when deployed to achieved planned obsolescence in fashion cycles by simple staging of outdating cycles of colors, textures or other sensorial factors in products and propositions. In anticipation and response to the crisis of this model of economic growth and the impasse of globalized capitalism (and its standardized models), the alternative notion of an *"…economics of permanence"* indicates the necessity to pursue viable alternative futures (Slaughter, 1993, p.66) based on a more substantial balance. This before and behind the rise of semiotic districts and design clusters in cities (Knox, 2011, p.204) mostly the direct result of market-driven, staged gentrification processes (Zukin, 1993, p.196). One might think of the proliferation of vernacular lifestyle signs (street culture or aforementioned leisure networks) in everyday spontaneous practices as opposite to the global standardization of luxury boutiques and the visual sterilization induced by retail brands (Bevolo, 2009, pp.153-155). However, such a thought would prove to be an illusion. Be it in globalized styles of architecture, beyond any vernacular (like in the new towns of China) or in the ruins of postindustrial American and Western metropolis, the urban landscape can become a reified "design object". This emerges as powerful metaphor of economic relationships of power between differentiating market dynamics beyond any *"…homogeneity of place"* (Zukin, 1993, p.16). As dialectic dynamic reaction to these processes it is possible to appreciate the aesthetic and cultural manifestation of what Slaughter defined *"…epistemological cracks in the shared worldview"* (Slaughter, 1995, p.133). Such *"…epistemological cracks…"* are visual and experiential, therefore design-related, contradictions in the texture of urban design. Closing an "ocular" circle based on visual constituencies from research to world-making, "design" as a semantic field can be articulated in various directions, as a highly polyvalent field of meaning and agent of meaning-making in the larger context not only of economy, commerce and labor but also and especially in the socio-cultural evolution of people's lives. This preliminary finding raises the necessity to further clarify the role of the "designer" beyond and because of such nature of "design". Economic and semiotic engines of contemporary cities are interwoven, when not overlapping. From structured "propers" to alternative lifestyles practices, the visual reigns over processes of social nature, leading to signification, in a lifeline of semantic generative production that maintains urban life, alive.

3.2) DESIGN AND THE DESIGNER: A CULTURAL AND SEMANTIC ANALYSIS

How to define, in the light of the above considerations, the semantic space occupied by the nouns "design" and "designer" themselves in order to distill their meaning by differentiation and contrast from neighboring fields of signification? For this purpose, it is possible to adopt a historical perspective: *"Nicholls and Murdock (2012, pp.1-2) consider social innovation to be a 'sixth wave' of macro-innovation following more technology based predecessors: the industrial revolution; steam and railways; steel, electricity and heavy engineering; oil, automobiles, and mass production; and information and telecommunications. Design as a discipline emerged in parallel to these earlier waves of macro-innovations as a response to the need of adapting technological artifacts to human needs, behaviors and measures. Today, design is also one of the creative disciplines that are active in social innovation"* (Emilson, in: Ehm, Nillson, Topggaard, Eds, 2014, p.17). A precise cartography of where "design" culturally lies in our current

understanding, as based on our shared language, starting from a general perplexity. Historically, the "History of Design" has been largely modeled on the canons of fine arts, both methodologically and visually (Fry, in: Fry, Dilnot, Stewart, 2015, p.4). This according to the established -one might even say: "the prescribed"- biographic norm, from Vasari to Modernism. This leads to the question: "Is design an artistic quest based on intuition or a scientific pursuit based on technology?" In juxtaposing "art" and "science" DeCerteau identifies the first as *"…unreadable"* without the second. "Fine arts" generate output created for an aesthetic, non-functional purpose, be it based on conceptual, experiential or even ideological principles (Bevolo, 2009, pp.139-140). With artists generically led in their work by the possibilities of free experimentation (although of course always subject to their market and social context), contemporary fine arts are nowadays considered "autonomous". Of course, exceptional situations of hybrid nature existed, currently exist and will continue to exist. An exploration of the history of fine arts and culture might enable referring to the drive for science-driven technology and the "new," that since 1909 characterized Italian "Futurismo", started by Filippo Tommaso Marinetti and its manifestos. "Futurismo", not to be confused with Futures Research, covered various contemporary disciplines, from literature to plastic arts, from fashion to food, to the new media of that time, namely radio, photography and cinema (Woodham, 1997, pp.12-13). Generating manifestations at the crossroads of autonomous arts and actual design, from products to propaganda (Bevolo, 2009, p.34), "Futurismo" expressed an irrational pursuit of the industrial possibilities of scientific and engineering progress.

In general terms, the complementarity between the two domains of art and science, and their protagonists, the rational scientist and the autonomous artist, might offer the space to generate a third position to mediate between "…*scientific theorem"* and *"…artistic experience"*: De Certeau identifies indeed such *"…third man"* as the "engineer" (DeCerteau, 1984, pp.68–69). Engineers have confined themselves in procedures of technical optimization *"…by drawing from the reservoir of the "arts" and "crafts" the models, pretexts or limits of its mechanical inventions"* (De Certeau, 1984, p.69). In this respect, the engineer might be seen as a figure of synthesis but also as a potential passive instrument of his own deterministic mastering of technology roadmaps if the latter prevail in setting the direction of innovation. From a design perspective, the fact that sophisticated machines can be built, launched and even stationed in our planetary orbit might be seen as a stepping stone and an opportunity in our human progress. However, "progress" as a means for cultural growth – not just as an engineering end in itself (Slaughter, 1995, p.90). Perhaps in a similar fashion as done by these critical thinking hypotheses of the XX Century, one might identify the danger a technocratic bias in contemporary society and culture. Namely, *"Solutionism",* that has been described by Morozov (2013), as an ideology based on the fallacious perception that technology would be the intrinsic and ultimate source of all necessary solutions. Such an approach does lead to the framing of all problems according to technocratic specifications, therefore dictating the agenda of "what" a problem is and "how" problems can be positively solved, with the mechanism of the "self-fulfilling prophecy". Furthermore, this process of Marxian alienation might lead to the interpretation of social reality in its entirety from this viewpoint of self-fulfilling technocratic formats only; *"Recasting all complex social situations either as neatly defined problems with definite, computable solutions or as transparent and self-evident processes that can be easily optimized –if only the right algorithms are in place…"* (Morozov, 2013, p.5). This is the kind of philosophical dilemmas that the engineering practice might not master, in spite of its ability in mastering technology. It seems inevitable to notice that this analysis brings us back directly to DeCerteau and to the existence of structures with their own "proper",

while practices work at the margins of society. Hence, scientists and engineers might be closer than DeCerteau originally described because both categories operate in their own "proper", through analytical reification and pre-ethical or post-ethical exploitation of their context, turned into inert specimen. If artists were to pursue a concept of a-functional, autonomous beauty or truth or both, or the opposite thereof, ultimately confined to the realm of autonomous aesthetics (Munari, 1971 – 2001, pp.31–32, quoted in: Bevolo, 2009, p.140), such definition would provide a clear juxtaposition versus the scientist and engineers from a modernist viewpoint. While positivist sciences reify the world as "inert" research object and engineers objectify the world as mathematical construction, artists might then be seen as embracing storytelling, experience and aesthetics within their own poetics. The opposition between the actionable exactitude of engineering and the autonomous intuitiveness of fine arts might therefore offer the conceptual space to generate a different profile than engineers in order to fill this new semantic gap.

After these introductory notes, it is possible, by difference, to define a semantic footprint for the noun "designer", namely a professional figure *"…who is led by rational teamwork and multidisciplinary insights, in the realm of applied arts for industrial production"* (Bevolo, 2009, 140, as synthesis of; Munari, 1971 – 2001, pp.28–29). The "designer" might be functionally defined as an intermediate conceptual point between; a) the scientist and the engineer, on the rational side of the spectrum of human enterprise and b) of artists on the opposite intuitiveness and creative freedom extreme. Between "design" and "fine arts", there is then a gap, mirroring the role of the "engineer" compared to that of the "scientist". Here, it is possible to identify an additional intermediate position -that of "styling"- as a hybrid approach where "fine arts" and "design" meet. While science is a pure pursuit, engineering is a technical application. While fine arts are an aesthetic, autonomous, a-functional quest, styling is a rationalized commercial response to market trends to support mass consumption. This is an area where short term demand cycles and pseudo-artistic decorative fads (Bevolo, 2009, p.140) enable the commercialization and distribution of goods without any specific functional benefits, thanks to their "semiotic premium" (Bevolo, 2009, 141), based on fashion "cool" (Bevolo, Gofman, Moskowitz, 2011, pp.34–136) and their trend appeal (Vissers, 2005). This specific function reinforces the notion that while scientific formulas in their conditional abstraction might be "eternal" in their validity; *"…all forms are temporal"* (Flusser, 1999, 61) and therefore our culture, formed by designed objects and images, is bound to the test of time and of evolving values in time. In conclusion, it is possible to scope the semantic field of the word "designer" by mapping:

- on the left direction of an imaginary axis, the rational and reified worldview of "science", that studies nature and humans as "objects", with its applicative branch of "engineering";

- on the right direction of the same imaginary axis, at the most extreme the intuitive and holistic realm of "fine arts", with its formal qualities and spiritual integrity diluted in the commercial branch of "styling".

Given these two extremes, science versus fine arts, and these two hybrid intermediates, engineering versus styling, the "designer" will be at the exact central point, in equal distance and balance across these different and opposite constituents:

Rationality >> Scientist >> Engineer >> Designer << Stylist << Artist << Intuitiveness

An even more synthetic vision directly relating art to engineering: *"In contemporary life, design more or less indicates the site where art and technology (along with their respective… ways of thinking) come together as equal"* (Flusser, 1999, p.19). *Abduction* might be seen as the epistemic to rationally incorporate intuitiveness in scientific processes and procedures, closing the circle. Designers enable the connection of the separated worlds of "rationality" (technologies, processes, procedures, or positivist linear forecast) with those of "intuition" (aesthetics, insights, practices, or postmodern abductive foresight). Such a fluid position translates into the corollary that "designers" have the ability to operate (as team members, according to Munari) across the *"…membrane borders"* (Kuosa, 2012, p.85) of different worldviews, systems and organizations. However, cultural "fluidity" should not be confused with ideological "agnosticism". Avoiding such confusion becomes indispensable when thinking of High Tech and its impact on contemporary society. Here, it is possible to refer to Lash; *"With the symbolic in fragments, circulating in a global economy of signs and space, for Walter Benjamin things take on powers of locution, become talking things"* (Lash, 1999, p.14). This 1999 quote might be interpreted as possibly anticipating the rise of digital technologies, smart cities and autonomous networked expressions beyond humans. In this line of analysis, following Morozov, as based on a massive amount of a-critically enthusiastic literature (printed from at least the years of the first dot.com revolution), digital technologies could be described as a pervasive presence driving the contemporary and future paradigms of globalized societies and cultures. A seamless presence that has culturally grown anonymously dictating the nature of societal frameworks and the modalities of evolution thereof; *"According to Bell's schema, if the first modernity follows a logic of technology and the second a logic of culture seen in contradiction from technology, then the global information order operates from the indifference of a technological culture"* (Lash, 1999, p.13). In this quote, one might find an echo of Castells's aforementioned *"automaton"*. Here, a central role of the "designer" as mediator between distant domains might be crucial indeed. Within this polarizing debate between technocratic enthusiasts and tech skeptics, an intermediate position might be to aim at a balance between "technology" and "culture" as equivalent societal drivers. This might result in the ambition to enable *"Social and Material Symmetry"* (Seitinger, 2010, p.26), a condition of neutral synthesis between technology and culture. Such point of supposed balance would then require new design concepts to describe supposedly new artifacts, interactions and experiences where "high tech" and "high touch", or technology and culture, might neutrally meet. As an example, *"Sociomaterial Assemblages"* (Seitinger, 2010, p.27), might be envisioned to play this role, being defined as; *"…the joint and enmeshed importance of material affordances and social practices with no categorical position on symmetry or asymmetry of actors"* (Seitinger, 2010, p.27). This appears as a potentially sound analysis from a sociological perspective. However, in light of the above descriptions of *"Solutionism"* by Morozov, from a designer and design viewpoint, a neutral *"sociomaterial symmetry"* might be interpreted as an agnostic effort to maintain impossible neutrality in contemporary fields of socio-cultural tension. Ultimately, neutrality might lead to dissolving one's specificity into the dominant position, in this case that of High Tech *"Solutionism".* As the final hypothesis at the end of this paragraph, foreshadowing the definition of High Design in Chapter 4 and from a more general postmodern view (based on bibliographic sources), the role of the "designer" might instead demand taking a clear position. This because "Designers", as opposite to "engineers", are ultimately tasked with keeping the focus on human priorities and cultural drivers, as primary reference and own specific ethical priority, with precise ideological and even political implications.

3.3) DESIGN AND THE DESIGNER:
A POLITICAL AND FUTURE-MAKING ANALYSIS

Foreshadowing the networking related function of "switching" as elaborated by Castells since the mid 1990's, to be introduced in Chapter 4, a "switcher" role of designers in society should be further described, when connected with their cultural functions; a) education, ideological production and dissemination of "Design Thinking"; b) ability to process historical trends and market perceptions within a specific professional status; c) ability to manage a specific labor organization and work ethics, with the purpose to enable the timely production and consumption of objects, spaces and images (Julier, 2000, p.4). These combined elements form the "culture of design", complementing a specific *"savoir faire"* based on technical, manual or visual ability. "Design" can therefore be ultimately seen as the endless activity of "designing design", with talents and skills completed by the ability to reflect and intellectually produce the "cultural discourse" of design. As a result, a designer who cannot articulate his vision beyond the plain visual and material dimension might be exposed to the danger to be classified as just a gifted craftsman, therefore not a "whole" designer. The latter will be instead always actively immersed in the specific cultural, societal and political dimensions of her time, and its predominant socio-cultural values, as an agent of (however indirect) political nature. A great degree of self-awareness is necessary to perform "Design" under postmodern conditions.

How can "Design" be analyzed in light of its complex, multilayered world-forming capacity, as an agency of future-making? This keeping in mind that "future-making" is a political activity *par excellence*. From a viewpoint of socio-cultural values, it might be possible to trace back *"…capitalist values and behavioral codes"* (Bell, 1997 – 2003, Vol. II, p.20) as the generic foundation of contemporary "design as cultural discourse". In 1719 Defoe's *"Robinson Crusoe",* as introduced in an earlier Chapter, a "mariner" builds his own personal utopia by "re-designing" the context and environment of his life on a deserted island. This might be a perfect representation of what Flusser defines as *"…homo faber",* born out of the humanistic center of the Italian Renaissance, as an idealized "actor" in the contemporary practices of design. If "man", like in this case, is at the center of "design" as his own enterprise, does this mean that "design" always "good", by definition? A superficial answer might be, as long as design manages to achieve its synthesis between sensorial aesthetics and industrial function, it might be assessed as "good design". This might however be the same question as asking: is Robinson Crusoe always ethically "good" in his re-designing enterprise? Here, the impact of Robinson's *"doing"* on the planet, just like that of industrialization, finds its limits in the reification of the landscape and of the indigenous people, e.g. Friday, within a Marxian process of alienation. Recalling Defoe's novel is a way to connect bibliography to life again, while exemplifying the problematic nature and speculative depth of this point. From a semantic viewpoint, it has been articulated how "design" is connected to (and connecting) the fields of arts and technology, the realms of autonomous experience and mathematic rationality, the mastery of aesthetics and the production by machinery. These are domains that –combined- might lead to notions like calculation, machination, manipulation, seduction and ultimately *"deceit"* (Flusser, 1999, p.18). For example, the lever is a superb work of design, based on scientific laws and made feasible by engineering calculations. *"Give me a lever and a place to stand and I will move the earth"*, as Archimedes anecdotally said. The lever is a mechanical extension (hence a machine) of the human arm (in Latin, "ars"), "designed" to "deceit" the force of gravity in its natural form and its functional role (Flusser, 1999, pp.18–19). An empowering tool to

bypass the limitations imposed on man by the law of nature, by "cheating" nature. Such potential corruption at the very heart of the notion of "design" is amplified by current IT and digital technologies. Thanks to these applications, designers have the possibility to philosophically leapfrog from *"…discovering forms…"* in nature, to the idea of actually *"…inventing forms…"* (Flusser, 1999, p.40) in virtual environments, to then plot them and 3D print them or mold them into real objects in the natural world. Through Computer Aided Design and advanced software programming and interfacing, the correspondence between mathematical models and final forms is ideal without deviation, resulting in a notion of the *"…real…"* (Flusser, 1999, p.37) that is functional and instrumental to human capabilities of design and production only. Any "form" existing in theory will be then enabled to materialize by means of digital design under specified conditions in its mathematic purity, with any algorithmic "formula" being immaterial and eternal in its (abstract) validity (Flusser, 1999, pp.24 – 25). With CAD technology, it is theory and calculus that drive sensorial experience, and not the other way around any longer.

One might state that all manufactured objects in use exist because they have been designed at some point in time. The condition of being manmade, therefore, should be seen as synonym with the genesis of having been "designed". Through this line of thinking, "design" can be semantically identified as "the" activity by which humans aim at *"…deceiving nature by means of technology, to replace that is natural with what is artificial and build a machine out of which there comes a God that is ourselves"* (Flusser, 1999, 19). Here, it is technology that plays a key enabler role in this *"aspiration to Divinity",* as it can augment (adapted from: Marzano, 1998, p.75):

a) *human power (enabling people to do more with less effort);*
b) *reach (from horse to airplane mobility),*
c) *senses and experiences, enriching them at cultural, intellectual and emotional levels…*

This *"amplification process"* is a cultural dynamic of transformation, triggered and mediated by communicative icons, leading to a *"re-interiorization"* (Marzano, 1998, p.75) into our everyday, of divine faculties like pervasiveness, ubiquity, timelessness and ultimately lightness. "Design" therefore maintains its ambiguity between opposite sets of values and potential functions, from *"deceiving"* the laws of nature to potentially leveraging the new opportunities offered by technology, as an agency of emancipation. This creates tensions, challenges and paradoxes in the specific operational and contextual conditions of contemporary design. Where both authority and authorship (Munari, 1971, pp.35 – 36, caption) have already lost their status of reference points. Here, complex and automated processes of production and distribution dilute the clarity of ownership of ideas and therefore responsibility (Flusser, 1999, p.67). Once again, designers master both "forms" and "formulas", to achieve synthesis. It is in this de-personalized, yet un-collective, context, that the connection of necessity between *"…functional good"* and *"…moral good"* as known before modernity (e.g., by means of religious norms or socially shared values) is simply lost (Flusser, 1999, p.33), by effect of processes of social fragmentation similar to the ones described by Zukin when analyzing the economic development of urban conditions, e.g. spatial city squares versus the financial constituencies of markets. Postmodern worldviews and the globalized free market economy associate an indeterminacy of meaning and values in economic and spatial perspectives with a terminal *"…utopian notion",* that of liberalism, asserting "…*universal freedom and personal liberty"* (Fry, 2011, p.219). As a natural consequence the evolution of liberalism into globalized financial systems and consumption dynamics

and materialistic ambitions of the middle classes towards "premium propositions" (Bevolo, Gofman, Moskowitz, 2011, p.4–5) resulted in severe "future-discounting" for next generations (Slaughter, 1999, p.53). Namely, such "future-discounting" pertains the erosion of environmental and social sustainability. Here, the urgency to go beyond any agnostic position as "Designer", as introduced above, might be further clarified as a key priority to avoid the fallacy of *"Solutionism".* Contemporary politics simply fail to generate those controlling and propositional roles and institutions capable to anticipate and manage emerging technologies (Margolin, 2002, p.86) and growing inequalities. These circumstances result in the rise of bottom up networked movements to fill in the gaps of power systems that start virtual but end up occupying the urban space (Castells, 2012, p.222). The outcome of these parallel phenomena is a specific condition based on mainstream design practices and identified by Fry as: *"de-futuring"*, where *"…future-blind design processes deliver the aesthetically packaged de-futured ruins an unsustainable world"* (Fry, 2011, p.12). In this context, "design" contributes to the larger formation of "image" as channeled by mass media, e.g. televisual and digital media, as enabler of the perpetuation of current values and norms, e.g. the aesthetic procedures that make everyday life inert (Fry, 2011, p.176, 217). In such respect, "design" positions itself at the very center of what Slaughter defined as: *"…a remarkable variety of short-sighted and untenable ideologies and systems of value and belief which have unacceptable costs in the long term"* (Slaughter, 1995, p.112). It seems natural to then conclude, *"…unsustainability arrives by design"* (Fry, 2011, p.19) because "…*the source of design is productivism"* (Fry, 2011, pp.53 – 74), here seen as the operational translation of *"instrumentalism"* (Fry, 2011, [[.80 – 82). "Design" then becomes a politically sided agent that contributes to *"de-futuring"* (Fry, 2011, p.22) by adopting an anthropocentric worldview (Fry, 2011, pp.117–119) and increasing technological dependencies within societies. It seems that market forces alone, as envisioned in globalized neoliberalist thinking, do not incorporate the potential solutions to challenges and problems they largely contributed to create in societies and ecologies. An alternative "…*normative approach"* well beyond neoliberalist utopias of unattainable growth is required (Margolin, 2002, p.83). Fry identifies *"four key meta-design observations"* that connect history, design and the future (Fry, in: Fry, Dilnot, Stewart, 2015, pp.7-8):

a) *Observation one is that as species the ability to prefigure what we intend to make before doing so is elemental to our being: this is designing at its most fundamental… Prefiguration is thus one of the defining characteristics of our becoming human;*
b) *Observation two is that from the ability to prefigure (as it directed both the creation and use of tools and, subsequently, the development of practices of making), human beings incrementally created by design what has been named a world-within-the-world – a world that in its complexity is now beyond our ability to comprehend;*
c) *Observation three is that the situation in which human beings now find themselves –demographically, geopolitically, biophysically, psychosocially and environmentally- is one wherein the future with a future for "us" can only be reached by design;*
d) *Observation four is that design is currently implicated in the world of uneven human development, dominantly in the service of inequality.*

The above translates into the inevitable urgency to reflect on the ultimate purpose of design as an agency and activity (Flusser, 1999, pp.58–59). In this respect: *"… whatever design can free, comes out of the unfreedom of what it delimits"* (Fry, 2011, p.210).

Designers are not passive agents in this crucial game for the future of humankind. They *"…project their designs*" –perhaps based on their best intentions in terms of morality, accuracy, aesthetics, pragmatics and normative values (Flusser, 1999, p.37) on whatever objects they create (Flusser, 1999, 60). In this context, quoting Victor Papanek (1972, p.3), Julier provides a definition of "designers" that encompasses all the ones who engage in the *"…planning and patterning of any act towards a desired, foreseeable end…"* within the *"…primary underlying matrix of life"* (Julier, 2000, p.30), therefore extending the semantic field from any specific professional field (product design, graphic design, interaction design) to a much more universal definition (the "*homo faber"* by Flusser). In ancient times, the ability of engineers and infrastructural designers to predict the future evolutions of nature, e.g. in the creation of Mesopotamian irrigation channels, resulted in an association of the semantic field of "proto-designer" with that of "prophet", or one with the possibility of *"…looking through time into eternity"* (Flusser, 1999, 2009, 2010, p.39). A conclusion drawn from Flusser is that "design" in this last definition is the very foundation of all culture (Flusser, 1999, p.19), where "culture" is the shared human field that "…*encompasses the totality of the objects in use"* (Flusser, 1991, p.58). This is because all objects defining our experiential context were actually an intention in the mind of a designer first, therefore *"…projected designs"* at the moment of their creation (Flusser, 1999, p.61). In such projection, one might see the future-making, political- role and power of design. These references to "planning", to "patterning" and to "project" designs are the backbone that enables designers to "looking through time" and the most natural semantic connection between the fields of "design" and "futures research" through what Gergen described as "world-making".

As introduced above, "Designers" might be described as creators of culture and play a political role in determining the future because they choose how such future will be embodied in artifacts, applications and applied technologies. The explicit risks implied in partaking in this self-annihilating process of *de-futuring* urgently calls designers for the re-direction of the agency of design *"…in its status, value and use"* (Fry, 2011, p.248), towards a *"…position of critical action"* (Fry, 2011, p.79). It is of course possible to take a more critical position, formulating a notion of "unsustainability" as a *"…reification of biophysical dysfunction expressed as ecological crisis"* (Fry, 2011, p.120). Where, "sustainable design" itself is not radical enough an approach to make a difference. More than a matter of morals it then appears a question of mere survival. "Design" requires itself to reflexively re-think as a *"political agent",* in order to *"…become a world and self-transformative force"* (Fry, 2011, p.190). In the more general context of re-direction towards new concepts of sustainability, architects and designers should perform their own political conversion towards the awareness of a higher professional purpose for the common good; *"…futuring"* (Fry, 2009, p.47), with a new attention for designing not just in space but also in time (Fry, 2009, p.58). *"Futuring"* means to give oneself and its environment a future by acknowledging our *"…condition of being in the world"* as both social and biophysical (Fry, 2009, p.113), hence radically changing the sense of direction and the cultural discourses around "design" as generated by designers themselves, educators and media (Fry, 2009, p.120) in what Julier identified above as the "culture of design". Fry urges the global design community to become aware of the desperate need to push further than current recipes of sustainable development. For example, sustainability within the urban sphere is a leading discourse at cultural level and it is one of the points where the corporate and technologist litany of "smart cities" finds its commercial articulation. Sustainability projects and solutions can deliver measurable improvement of urban living conditions, with reduced environmental impact, as in the case of Tianjin, China, where Chinese and Singaporean investment capitals

enabled multinationals like General Motors, Philips or Envac to design, deliver and deploy advanced sustainable High Tech solutions (De Ridder, 2012, p.86). However, Fry does not seem to consider current efforts in this direction sufficient. A different approach to achieve such (self) perceptual change is instead indicated by Fry in *"…platforming: a (late 1960's) strategy that maintains existing economic activity and work culture, while building a new direction and products and services that are based on futuring"* (Fry, 2009, p.126). As an applied example thereof, *"…metrofitting"* is an innovative urban design process for cities. Beyond currently standardized notions of sustainability, *"metrofitting"* aims at looking at the city as a *"semiosphere"* (Fry, 2011, p.77). By reading the city anew as a *"large systemic object"* design can then embrace its diversity and re-purpose the unsustainable infrastructure into *"sustainment"* (Fry, 2011, pp.136–137). Defined as: *"…the (project and process) counterforce to defuturing… by means of "redirective practices"…"* (Fry, 2011, pp.5- 11). This will be feasible as it is in the nature of contemporary objects to resist intentions as determined and to undergo collective re-definition through everyday practices and (ab)uses (DeCerteau, 1984, p.25), based on evolving and emerging socio-cultural values. The proliferation of antagonist, spontaneous niches associated with the urban fabric of leisure is therefore crucial in this re-orientation effort, playing the role of an engine of alternative lifestyles and new norms.

Paradoxically, "Design" is at the same time one of the roots of the current consumption challenges, materialized in the visual pollution and globalized standardization of urban semiotic districts in cities (Knox, 2011, p.233). This as well as a possible practice based on intellectual reflections leading to new notions of *"…enoughness"* and therefore hopes of sustainability (Slaughter, 1995, p.152). The practical steps of a design approach that goes beyond sustainability might require the mobilization of stakeholders with the greatest quantity of participants and quality of contribution. Where the purpose is to create *"…cultural capital (knowledge and power of imagination)"* (Fry, 2011, p.70) by means of opportunities to aggregate and stimulate citizens through leisure. As a second step, Fry proposes the formation of *"…futures corporations (owned by all the social, economic and political elements from which the urban community was formed)"* (Fry, 2011, p.70). As a third step, institutional, industrial and financial partners would join to provide the *"…foundation"* to the urban project to be translated into reality (Fry, 2011, p.70). The Soviet revolution is taken as an example of a "grand plan" that did not work in reality hence the focus on diffused feasible projects instead (Fry, 2011, p.180). This approach was piloted in the challenging project of moving an entire city located in Lapland, which future in its existing geography was compromised by changed economic conditions (Fry, 2011, p.68). In this Nordic case, the overall project was however not optimally designed resulting in a poor analysis and problem definition (Fry, 2011, p.72). Hence, highlighting the potential need of an additional analytical component in the design process, in order to enable its future success. One might say, the conversion of the "futuring utopia" into a different "future real" might require additional intermediate steps of futures research and a different kind of strategic planning, starting from cities. In this context, any agnostic position appears void of future relevance.

3.4) FROM PLANNING TO PRACTICES: DESIGN IN THE CITY

Fry's approach to *"futuring"* is based on engaging people at level of "everyday practices" and their intrinsic generative quality of expressing alternatives to existing strategies and structures of power. The role of "networks" is therefore crucial for this "design ideology" and for the awareness of the urgency to take action for "sustainment" (Fry, 2011, p.126),

in order to counterbalance what Fry defines as globalizing *"…imperialism"* working on the basis of centers of control and command [consolidating the ideology of *"…political and economic liberalism"* (Fry, 2011, p.221),]. Such imperialist mechanisms and agents can be simply *"displaced"* (Fry, 2011, 126) by the informal nature of people's bottom-up networks (Castells, 2012, pp.2–3). One might recall DeCerteau's notions of *"guerilla"*. Within the potentially emancipatory context of cities, digital technologies might service and serve, as ancillary enablers, the formation of *"networked publics"* in the spatial virtual of *"simultaneous places"* (Varnelis, Friedberg, 2008, p.16) expanding and augmenting the possibilities for bottom up grassroots aggregation (Castells, 2012). Further analysis of networks and of the specific role that networks play in the socio-cultural context of "design" will be presented in the next chapter.

Because of the urgent imperative to revert all de-futuring processes towards virtuous practices of sustainment, everyday practices should also emerge and be leveraged in their political status (Fry, 2011, pp.103 – 104), beyond current procedures of parliamentary democracy and its related processes (Fry, 2011, p.131). In this context, the political value and utopian potential of "design" becomes clear as a potential agent of renewal at deeper ideological levels than plain product innovation or marketing gimmick: *"In a "post-product society", design may once again transform itself into a means of ordering the world rather than merely of shaping commodities"* (Margolin, 2002, p.97). The key element highlighted by Fry among the design sector priorities is to adopt a "time dimension", hence design for *"futuring"* in what the author defined in synthesis as *"Chronal Design"* (Margolin, 2002, p.138). This meets the focus on "time" as highlighted in the first two chapters above, from "timeless time" to the 200-years present. As analyzed in the previous section on futures research, designed assets provide the seed for social change by capturing the power of ideas in the form of carefully crafted and designed communication items like movies, novels, manifesto's (Castells, 2012, p.15). Slaughter envisions a systemic approach to *"…cultural design"*, addressing the need for renewal through: *"aesthetic standards, technological systems, time management, land use (e.g., spatial systems like cities) and regulatory systems, driven by: a) ethics and b) ideas, images and metaphors deposited in the language system"* (Slaughter, 1995, pp.130– 131). Here, an action-oriented, optimistic notion of "design" exists, one where design might be seen as an agency of *"…self-production, self-renewal and self-definition"* of society: a catalyst in the process of *"autopoiesis of our human context"* (Kuosa, 2012, p.72). Slaughter further observes how *"…notions of design"* embody both the past and the past of human history. He however, mitigates his optimism when he underlines how "design" in itself might be seen as a practice oriented *"…towards the future use of what is designed",* be it simple tools or complex systems like buildings or urban planning (Slaughter, 1995, p.50). Not only has the visual image retained major inspirational power –as reiterated above about both social research and foresight. Also, it is impossible not to record the relevance of the urban *"…space"* in terms of prevailing human priorities (Slaughter, 1995, p.132). The socio-cultural evolution of "design" beyond functional "industrial design" is surely not confined to alternative lifestyle networks and communities (niche offspring of leisure). Its impact has a major effect on "planning" as a function, including the strategic planning of corporations and the urban planning of cities. Networks resulting from informal practices however affect the acquired relationships of power that underlie patterns of consumption and production, and related rationalized social relations (Fry, 2011, p.223). As seen in the equivalent concepts of Slaughter's *"…future-discounting"* and Fry's *"…defuturing",* the consequences of human actions as enabled by and projected on technologies are non-linear (Fry, 2011, p.127), ultimately irrational in prospect negative terms. At the same time, it is this kind of non-

linearity that applies to those informal practices that have the power to transform *"…urban space"* into the *"…concept of a city"* (DeCerteau, 1984, pp.93–94). Just like "planning" does exercise a monopoly on potential change, it is a fact that the accumulation of micro-design interventions triggered by informal networks in the world, and peculiarly in cities, may achieve a critical mass (Vallo, Sandovsky, Eds., 2011, p.56) and trigger change both in perception and in substance. This possibly leads to a reversal of hierarchies in the actual exercise of ownership rights on space, and in the privilege to "design" it. A more politically sensitive and sensible architectural design practice (Stoner, 2012, ix), ultimately aimed at socio-cultural innovation within cities, might be required. Disengaging from the long tail of modernist planning and its mirroring counterpart of market-driven commercialism might be the purpose. This does require a new attention for the "everyday practice". To achieve such reversal from *"defuturing"* policies, it is possible to think of *"unsolicited architecture",* where the designer, as a true *"homo faber",* identifies and addresses areas of spatial and social intervention with highly flexible and cost effective solutions for the everyday, without the need to have commissioners (Vallo, Sandovsky, Eds., 2011, p.42). Thanks to its *"pro-bono"* business model (Vallo, Sandovsky, Eds., 2011, p.46), this new vision of architectural design work enables an amplified gesture to achieve change in cities (Vallo, Sandovsky, Eds., 2011, p.44). Well beyond the commercial compression and intellectual submission intrinsically articulated in the standard power relationships between designer and paying customer, change might rise from informal practices. One might say, a whole generation of contemporary architects might look at the city as a canvas where *"left over"* signs, structures and practices find their homes, in the interstitial spaces between planning and architecture, to be seen as a sort of subconscious layer of urban places (La Cecla, 2008, p.21), to activate dynamics of socio-cultural nature through highly contextualized interventions. A conclusive working hypothesis might be that this architectural practice is where the city will generate its alternative futures by *autopoiesis*, in line with earlier theory by Fry and Slaughter.

According to Fry, as based on what was introduced above, the contemporary city is a critical context where new notions of design, planning and foresight are urgently needed and most actionable. Urban planning was firstly in the hands of intellectuals and practitioners who had their ideological references in anarchist ideas, *"…like Howard, Geddes or the Regional Planning Association of America"* (Hall, 1988, 1996, 2002, p.3). However, these ideals were not directly reflected in the results of planning interventions, and sometimes, as in the case of modernist architecture and design "guru" Le Corbusier, those ideals were not even present. In this respect, it might be mentioned how the 1890's "City Beautiful" movement was inspired by control and command according to strict authoritarian principles, in line with the financial and political power brokers of its time (Hall, 1988, 1996, 2002, p.3). Consequently, it seems important –more important than a superficial analysis of urban architectural aesthetics- to determine the economic, political meaning of urban dynamics and patterns. For example, for years, city centers were emptied by the migration of affluent citizens to the homogeneity of suburbs in fragmented, yet systematic processes (Zukin 1993, p.143). This was followed by the return of gentrifiers to city centers in the recent market-led urban renewal of post-industrial city centers (Zukin, 1993, p.188). Beyond apparent lifestyle "trends", such migration first from the center of cities to the suburbs and then back, does represent just an oscillation within capitalist cycles of land use and spatial organization. It does however not imply any deeper political change in the power relationships or in the socio-cultural core values, which remain fixed around the neo-liberalist utopias of individual freedom and value property. Most urgently, to conclude this example, the gentrification

switch *"…from public to private sector, from large to small-scale projects, from new construction to rehabilitation"* (Zukin, 1993, p.188) did not result in any significant change at level of *"futuring/defuturing"* cycles.

The above lines of theoretical reflection generate the challenge to identify a conceptual framework functional to capture and describe a design agency might operate *"…both upon architecture's grammatical constructions of (virtual) power and its physical, material form"* (Stoner, 2012, p.3), an architectural practice that goes beyond "…*the aesthetic pursuit of making buildings"* (Stoner, 2012, p.1). A possible philological reference was identified in Deleuze and Guattari, namely in their work on Kafka as *"minor literature"*, where "minor" stands for a *"…condition that exists at the bottom of power structures, yet it holds an extraordinary potential for power"* (Stoner, 2012, p.3), therefore matching the description of "everyday practices" in niche leisure networks and alternative lifestyle cycles based on Castells and Fry. *"Minor Architecture",* just like its corresponding "minor literature", might then be described in terms of *"deterritorialization/reterritorialization"*, of *"politicization"* and of *"collective enunciation"* (Stoner, 2012, p.3):

1) the notion of deterritorialization/reterritorialization addresses the privilege of power holders to define and enforce *"spatial discontinuities"* (Stoner, 2012, p.31), with the Berlin Wall and its history between 1961 and 1989 as a noticeable urban paradox (Stoner, 2012, pp.33 – 34 – 35);

2) the notion of politicization addresses the dynamics of power making related to the reification of space as an "object", at worst *"cramped space"* (Stoner, 2012, p.54), with a key political factor lying within mobilization of people, *"from substrata that may not even register in the sanctioned operations of the profession"* (Stoner, 2012, p.4);

3) the notion of collective enunciation addresses the *"practice of architecture"* itself at the very depth of its ideological roots (Stoner, 2012, p.74), with the resulting consequence that the *"destruction of the architect/subject"* is necessary (Stoner, 2012, p.76).

Closing an ideal circle within this PhD, Stoner acquires from DeCerteau the definition of "space" as *"…practiced place",* where mobile elements are structured in intersections. While *"place"* represents the stability of elements co-existing in mutual relationship according to a clear configuration, *"space"* is *"…a polyvalent unity of conflictual programs or contractual proximities"* (DeCerteau, 1984, p.117). From here, the synthetic definition of "Minor Architecture" implies a *"…reframing"* of architectural design *"…from the making of buildings with materials of nature to the making of spaces within the already built*" (Stoner, 2012, 16) in line with the work of the likes of aforementioned Vallo and Sadovsky in Slovakia. A new professional definition of the architectural design practice according to the considerations so far is that of *"Spatial Agency"* (Awan, Schneider, Till, 2011, p.29), where:

1) *"Spatial"* expands the field of architecture from *"physical objects";* which are static, be it building or furniture, to *"social spaces"*, which are by nature *"dynamic and political"* (Awan, Schneider, Till, 2011, p.29), with the resulting necessity to claim back those networks of practice excluded by earlier description of architecture as sole "building design" (Awan, Schneider, Till, 2011, p.30);

2) *"Agency"* is *"described as the ability of the individual to act independently of the constraining structures of society"* (Awan, Schneider, Till, 2011, p.30), where; following theory by Anthony Giddens- *"structure"* identifies *"the way society is organized"* (Awan, Schneider, Till, 2011, p.30), resulting in a dynamic dichotomy "agency / structure" that positively creates a perpetual tension in the newly defined design field (Awan, Schneider, Till, 2011, p.31).

"Spatial Agency" can therefore be seen as the conclusive point where the "design of products, images, signs" of the past is reframed by Fry's *"futuring/defuturing"* imperative to take on board those informal networks (Castells, to be introduced and elaborated in Chapter 4) and intellectual practices captured by Stoner in her synthesis of "Minor Architecture". The notion of *"Spatial Agency"* is not defined as an "alternative architectural practice", it is not *"alternative"* because it aims at re-defining the design norms by accumulation and not at rejecting the paradigm in a binary relationship of "norm/anti-norm", from a marginal or "avant-garde" perspective (Awan, Schneider, Till, 2011, pp.26-27). Similarly, it is not addressing its professional *"architectural practice"* of origin, as the latter is appraised as unreflective and based on repetition, even when filtered through the analytical lenses of *"critical architecture"* (Awan, Schneider, Till, 2011, pp.28–29). *"Spatial Agency"* simply represents a proposal for a new way to look at design for *"futuring"* in urban context. In this sense, it offers a final point of conclusion for the entire excursus performed throughout this chapter.

CONCLUSIVE NOTE

In order to pursue a bibliographically validated answer to the ancillary question behind the chapter: *"What is "design" in theory, what might it mean in the urban futures context?"* "Design" was examined in historical, philosophical and theoretical fashion, leveraging sources as diverse as Munari, Flusser and Fry, while connecting it to social sciences and futures research. It is possible and herewith proposed as one of the hypotheses of this PhD study to actually revert the order of dependencies and identify design as "the" people-focused agency that potentially regulates the human environment beyond economy and ecology (Flusser, 1999, p.53), beyond any risk of technocratic "Solutionism". Such statement supports a further amplification of what Flusser defines as "…*the question of responsibility"* for designers (Flusser, 1999, p.59). In this line of thinking, even humanity itself appears to be a *"…epistemological construct…"* (Fry, 2011, p.99). Hence, depending on the quality and quantity of knowledge about "being human" available at each given moment in time. In a market-driven, ethically challenged context, "design" is indeed key as "the" *"world-making"* activity (Fry, 2011, p.234). In this respect, agnostic positions aimed at neutrally defining the role of "Design" in establishing the cultural grammars of High Tech were reviewed and discounted as a potential manifestation of *"Solutionism".*

From this theoretical foundation, Chapter 4 will bibliographically move further towards the description of High Design as a design process that might translate some of the key principles so far described into corporate standards of business repeatability, feasibility and performance, offering a synthesis of humanistic values, sociological principles and design multidisciplinary specificity. The next chapter will methodologically remain within the Section I, being based on published works by scholars and authors. It will do so by sketching a complete overview of High Design and its applications to urban futures as

seen from extant documents and existing (printed) sources. In this, Chapter 4 will offer the synthesis between above theoretical explorations and the next empirical chapters, while remaining in the realm of accumulated insights and organized knowledge from third parties. Hence, not empirically developed for this PhD study but reviewed and edited according to its Key Research Question, Central Phenomenon and epistemological principles as functional to its general academic economy.

SECTION I: BIBLIOGRAPHIC REVIEW
FROM SOCIAL SCIENCES AS EPISTEMOLOGICAL CHALLENGE
TO DESIGN AS AN ACTION METHOD

CHAPTER 4:
DESIGN THEORY: FROM DESIGN PROCESS TO URBAN FUTURES

Ancillary question:
What might "High Design" mean as research method for urban futures?

NAVIGATOR

- to be expected in chapter 4:
  introduction to High Design and its urban futures application (city.people.light), including key definitions of "Design" and networks, descriptions of "Design districts"; High Design urban futures application: key methodological references (urban futures matrix).

- references from earlier chapters that enable understanding of the chapter:
  Chapters 1, 2, 3 as necessary foundation about futures research epistemology / methodology and design theory.

- position/role of the chapter in the PhD study overall sequence:
  wrapping up by converging theoretical lines defined in Chapters 1, 2, 3, while establishing the necessary references for empirical chapters (primary research of this PhD study); link to Chapter 9 (foreshadowing Sensitizing Concepts as developed from Theoretical Tensions).

- why the chapter is relevant:
  providing bibliographic framework for empirical "research objects" of this PhD.

- to be expected after this chapter:
  methodology to perform empirical PhD project.

INTRODUCTION

The three chapters of Section I above introduced a number of theories and visions based on scholarly authors and their published ideas. In continuity, this chapter will offer methodological reflections and multidisciplinary opportunities to cross-fertilize research with design, and vice versa, in order to engage in the study of urban futures from a design perspective, with particular focus on the value and function of professional networks. As a "hybrid junction" between theory and primary research, this Chapter 4 will reframe "design" according to a very specific operational context, that of Royal Philips NV and their global service unit, Philips Design. At Philips, "design practices" have been institutionally structured since the 1920's as corporate processes (Marzano, Ed., 2005, p.16). Since 1991, the Corporate Industrial Design department of Philips first, the Philips Design Global Service Unit from 1997 onwards, aimed at generating not only experiential, visual and material assets but also "knowledge" in the form of futures research (Marzano, Ed., 2005, p.22). Elements of an interpretative frame on networking will be introduced, including Castells' key notion of "switching". A number of statements

and narrative lines might appear even drastic in their formulation. However, within the framework of the provided information, to be considered partial and preliminary with respect to the primary research that will follow, there will be a sufficient accumulation of preliminary insights to enable the formation of both a methodology (Chapter 5) as well a primary research project, based on clear background information. In the peculiar epistemological and editorial approach of this PhD, Chapter 4 will therefore serve as a bibliographically referred, hybridly formulated (e.g., literature and recall) introduction to High Design, the Philips approach that was already foreshadowed in above chapters. Hence, reconnecting the theoretical, historical and analytical points as articulated above for exploratory purposes, to the formulation of the Central Phenomenon, to be provided in Chapter 5. The purpose is to wrap up the bibliographic section while at the same time creating a solid foundation for the actual empirical development of Grounded Theory that will follow in Section III, by means of coding primary qualitative data. This purpose will be pursued by firstly presenting, in an organized fashion, selected information on the High Design specific processes as they can be extracted and described from literature and other sources. Because the "research objects" are not specified yet, all extant documents, e.g. city.people.light books, will be solely referred as bibliographic sources and not in their capacity of "research objects". Hence, enabling a hybrid, neutral review of what exists in the public domain and in archives; be the latter official company archives or personal archives of the PhD researcher. These public or archive sources will be integrated where appropriate with the recall of personal memoires and memories by the PhD researcher, as based on his direct witnessing of events or his previous corporate manager, consulting principal and company author roles at Philips Design. This Chapter 4 was positioned as key reference in the progression from purely theoretical discourses to the actual practice of field research, generating Grounded Theory. Its sole bibliographic sourcing and the absence of any empirical data void any ambition to qualify Chapter 4 as a conclusion of the theoretical and historical reflections so far. It must be instead stressed that what is introduced in this chapter is purely a first generic, however contextualized, narration of facts, circumstances and ideas that should not be interpreted as generated by primary sources.

In general terms, a self-representation enacted by Philips Design by means of books, papers and other official and informal printed materials will be reported and referenced. Hence, it is a deliberate choice to postpone systematic testing of hypothesis and primary research to the next chapters. One might say, that this Chapter 4 is tasked with sketching a map based on available references, representing a territory from an aerial perspective with the purpose to define its formal borders and expected morphology, pending due empirical verification on the ground by means of critical analysis and systematic questioning. In terms of specific content, it will include a final synthesis from various analytical threads presented so far leading to educated choices with respect to:

a) final PhD definitions of science, knowledge and design;
b) final PhD definitions of networks, networking and related dynamics;
c) final PhD specifications of "Design Thinking" and design creative processes.

Besides providing conceptual closure and ultimate specification to the above topics of uttermost relevance, a number of specific Philips Design-related items will be reported in the larger picture of theory. Shifting from such theoretical foundation at level of definitions to a number of cases, the latter being:

1) the organic, informal network structure of Design Districts in Northern Italy,

connecting “design” to vernacular dimensions of the everyday in an organic fashion, as a theoretical reference for High Design, as Philips Design identifies their specific creative management process;
2) High Design as an organizational approach, the industrial management process created to mirror the qualities of Design Districts, however with the necessary requisites to perform in a multinational corporate setting;
3) *“Vision of the Future”,* the 1995 application of High Design to the generation of preferable futures, and the related vision of “innovation horizons” at Philips Design;
4) the further declination of High Design for urban outdoors, “city.people.light”, as a design-led, networking-focused research program;
5) the “city.people.light Award” as an example of how the city.people.light platform has gradually gained a perceived independence from Philips Design within lighting design and urban planning networks of reference.

As a connecting thread between the bibliographic and primary data-based Sections III and IV, at the end of this chapter, a number of “theoretical tensions” will be identified. They might represent the synthesis of theoretical reflections as well as an equivalent of those aforementioned *“epistemological cracks”,* or at least gaps, which might trigger the development of new frameworks. It is possible to actually argue that without the identification of such “tensions” from bibliography an grounded theory empirical project on city.people.light might have been redundant.

4.1) DESIGN, KNOWLEDGE GENERATION AND FUTURE RESEARCH

The focus of this Chapter 4 is on “Design” as a possible method for futures research, with an action-oriented priority in terms of methods and with the specific focus of urban outdoors as its background priority. As diffusely explored in the prior three chapters a number of parallel and convergent lines were identified in the works of Slaughter, Flusser, Fry, DeCerteau, Gergen and more scholars, describing the potential relationships between “design” and “futures research”. It is therefore possible to propose that such a potential relationship (if not to “overlap”) between design and future-making is a hypothesis articulated in postmodern thinking, with deeper roots in the 1960’s epistemological *“linguistic turn”.* Based on this premise, it is useful as foundation for what will follow to further identify a number of frameworks to provide an interpretation to the notion and function of “knowledge”:

a) the effort to reposition “research” as knowledge generation from the approach of what Habermas defines as “systems perspective” to what he described as “lifeworld perspective” (Kemmis, in Reason, Bradbury, Eds., 2001, rep. 2004, p.94) or, in simplified terms, to shift the focus of qualitative research from scientist paradigms to a closer representation of true human life, however abstract and difficult to further specify such notion of “trueness” of life is;

b) the influence of critical theory; reflecting the ambition to define and operationalize a more “reflexive” knowledge, where “actors” analyze and reflect, and action is an integral part of research (Park, in Reason, Bradbury, Eds., 2001, rep. 2004, p.86).

As “science” is not –within this PhD- defined as a Cartesian territory of absolute

rationality and unambiguous statements, as it has been extensively articulated since Chapter 1, then it might be possible to describe "knowledge" as a field itself in perpetual semantic dynamism too. In line with the earlier findings, this hypothesis seems particularly relevant for the field of future studies. Being a forward looking, anticipatory domain of both vocational (foresight) and formal knowledge (studies), Future Research historically developed its practices not only to generate standard research findings but also to generatively ensure; a) the ability to develop new theoretical connections across disciplines and b) the openness to incorporate new practices, techniques and tools, and to constantly innovate its overall portfolio at methodological level (Markley, 2011, p.145). In this respect, as already demonstrated, it is possible to associate and analyze as "future studies" a much wider set of "knowledge assets" than in standard market research, e.g. as seen with Science Fiction. This holds true both for generic influences (Ramos, 2002, p.6) as well as a potential new "branches" of Future Studies (Lombardo, 2008, 8 / 9), e.g. in the case of art critics or journalism (Bevolo, 2009, p.15), or, more specifically functional to this chapter, for "Design" (Bevolo, Gofman, Moskowitz, 2011, pp.220-221). Design as extension of or as an integral competence within Futures Research?

4.2) KNOWLEDGE ENGINES: FROM TRAINED JUDGEMENT TO DESIGN NETWORKS

Several touchpoints and proto-definitions were already examined in the chapters above according to formulations by Slaugther, Flusser and Fry, among others, from design theory to new notions of *"futuring/defuturing",* and the new roles and responsibilities that design and designers face in terms of "future-makers". Bringing synthesis to this tension and resolving any gap between the domains of "knowledge" and "design", Robert Grudin defines "design" in its widest sense, as the agency that "…*shapes, regulates, and channels energy, empowering forces that might otherwise be spent chaotically […] …realized design is a module of embodied knowledge, and much of this knowledge is transferable into the world"* (Grudin, 2010, p.5). It can therefore be stated that "Design" is intrinsically "knowledge" just as research data, insights and findings are "information". As anticipated in Chapters 1 through 3, since the mid 1990's, Manuel Castells has envisioned our current world as a *"…informational economy",* based on *"timeless time",* with leadership and production being flexibly concentrated or outsourced. According to Castells, networks are "…*flexible, scalable and survivable"* (Castells, 2009, p.23), with the key function to *"…process streams of information circulating through channels of connections between nodes"* (Castells, 2009, p.20), organizing *"…core activities that shape and control human life".* Networks work according to specific sets of recurring rules, either formalized or de facto being at the center of their functioning. Networks do not exist in abstract. On the contrary they embody the dynamic connection of distinct actors. By actor in a network, Castells identifies *"a variety of subjects of action; individual, collective, organizations, institutions, networks themselves"* (Castells, 2009, 10). Power exists around command and control centers mostly located in global metropolitan areas where the abilities lie to coordinate, innovate and manage the activities of networks. Nodes in these networks of physically disjointed, yet highly interdependent firms' process data and information, according to knowledge management precise protocols and priorities. From an economic perspective social structures originate from processes and assets where productivity is enhanced by the efficiency and effectiveness of the interplay between global networks and local actors. In this societal model, the predominant form of valuation is commercial and financial

(Castells, 2009, p.32), in the form of 1) money or 2) barter (Castells, 2009, p.53). "Design", as an industry regulated by its managerial, economic and socio-cultural processes, is eminently aligned with Castells' vision of value generation in the network society (adapted from: Castells, 2009, pp.32 - 33). Within "Design", it is appropriate to re-connect to the notion of "project" as fundamental unit of value generation and operational processing, as presented above for "foresight":

a) business projects are its reference "units of production";
b) with financial and barter / symbolic value as valuation parameters for exchange and
c) with innovation as key productivity factor

In Chapter 3, following Zukin, "Design" was positioned as the semiotic agency and the societal constituency tasked with filling the gap between nomadic, displaced, post-modern citizens and mass manufactured goods, Its function, to symbolically substitute the earlier "market" intimacy enabled by positional proximity within the "urban place" *par excellence*, the square. It was already possible in Chapter 3 to appreciate, through the reflections of Julier, Margolin and Sudjic, how "design" is a complex semiotic marker. As a "cultural discourse", according to Hajer's definition, it is a powerful catalyst of elicited and implicit meaning. The word "Design" itself shapes the "public mind" by giving an orientation to specific strategic choices of form and meaning. This is possible because "design" is always a communication agent, either as "signifier" open for interpretation in economic distribution channels (the aesthetic language of a visual asset, e.g. a product) or as a "(semantic) signified theme" in media (what people write, say and "click" about/as "design"). In line with the general narratives and generic storytelling that emerge from the design industry itself "designers" are generally portrayed by the contemporary media and in word-of-mouth conversations as "agents of change" and "lifestyle innovators". Operating by combining artistic intuition with business understanding (Knox, 2008, pp.6–7), designers appear in line with an interpretation of their role between styling and engineering, as based on Munari's interpretation. As a matter of a fact, in the task division of the geographically dispersed, culturally fragmented and managerially outsourced postmodern *"…network enterprise",* "designers" belong to the *"…networked elite"* of self-programmable labor economic actors (Castells, 2009, pp.30- 31), hence at the zenith of societal organization. Within the globalized "systemic" context (in the sense of Habermas' reference), as described by Castells, "Design" is one of the core activities of fundamental economic processes in terms of knowledge generation and information flows (Castells, 2010, Fr. Eds. 1996, 2000, p.409). Besides any theoretical touchpoints as identified in Chapter 3, this seems like an optimal standpoint to perform futures research, intended as an activity based on the generation of "knowledge" deliverables.

4.2.1) A theory that generates no rules, and its fundamental processes

In the chapters above, an effort was documented to identify a theory of practice within the postmodern critique of positivist science. Hence, offering an epistemological and operational alternative to the Cartesian framework. The practice of "Design" appears to be immersed in such a framework. Namely, generalizing "Architectural Design" as "Design": *"…processes in architectural design require a certain tolerance for change and imprecision; a certain amount of approximation, ambiguity and dynamics…. An architectural design theory is not a rule. It wants to be useful. And it is only useful if it is suggestive and indicative: propositional and speculative"* (Colletti, 2013, p.3). In order to draft any hypothesis of how "Design" might generate and channel "knowledge", as based on practice starting from such non-Cartesian position on theory, it is necessary to further

reflect on how designers operate and how "Design Thinking" is articulated and constructed in bibliographic sources. In general terms, beyond the applicative details of specific fields like product design or architecture and closer to Grudin's definition, "Design Thinking" (Brown, 2009, p.19), can be potentially classified as *"…representational"* and *"…relational".* This based on the *postmodern shift* from "product design" to the empathic analysis of context and meaning that, since the early 1990's, characterizes the ethos of contemporary design industry (Brown, 2009, p.39). At the same time, Design remains a political practice, as exemplified above by the architecture of 1900's dictatorships such as the Soviet Union or Fascist Italy and Germany. In continuity, in today's cultural and economic climate, within architectural design projects and programs, purposes of emotional and psychological nature might at times overrun considerations of ideological and ethical moderation, resulting in semantic ambiguities and semiotic paradoxes with political implications that keep informing the world of material manifestations for decades after they were first sketched (Sudjic, 2005, p.7).

Shifting back to an organizational perspective, "Design" work eminently happens in the spatial serendipity and organized chaos of studios, where it is typically governed according to specific procedures. As in an example referred to OMA AMO, the Rotterdam headquartered firm founded by Rem Koolhaas in the 1970's, the process of architectural creation might unfold as follows: *"1 The research stage – at the end of this stage the content is defined; 2 The concept design – the idea is defined and the building is beautiful; The schematic design – the building is defined… 4 The design development – the building is feasible. In design development, the building is becoming ugly and uglier, is dismembered into different schemes and files, and then becomes beautiful again at the end; 5 The construction, administration and planning – the building is built; 7 Lectures, publication, exhibitions – once the building is built… When you look at the process from a distance it is a linear process, but during the design it is really hard to say where exactly we are going. Moving according to different trajectories of space and time, designers perform series of steps with various intensities and speed"* (Yaneva, 2009, pp.13, 14). Beyond this first example of process description, a reflection on how designers conceptualize their own personal processes of "knowledge generation" can be identified in the contemporary notion of *"Trained Judgment",* as defined by Ben van Berkel, co-founder of UNStudio, in Amsterdam and Shanghai, and a prolific author and academic thought leader. *"Trained Judgement"* (Berkel, Bos, 1999, from the English translation provided by UNStudio) is firstly a proactive reaction to digital data processing redefining the *"…architect versus commissioner versus regulator"* relationships in the context of networked architecture. It is a highly integrated capability where information flows, objective context (functional/utilitarian) and expressive talent (creative/visionary) dimensions. As an active and dynamic method, "*Trained Judgement*" requires critical thinking, editing capabilities and intuition guided by experience. It is a way of working aimed at applying empirical knowledge to the complexity and contradictions of contemporary urban design business. While presenting a sophisticated approach to design management, one that highlights the relevance of professional experience and data processing, *"Trained Judgment"* does not directly relate to formal practices of systematic research based on scientific or at least formal characteristics that might be traced back for managerial performance assessment purposes. This is because *"Trained Judgment"* is:

a) neither repeatable over a number of cycles, or "probes",
b) nor reflexive in terms of generating of an own theoretical foundation.

"Trained Judgment" might be possibly categorized as an incremental evolution of past paradigms describing the creative process in applied arts, based on what appears an intuitive view of creativity. Ultimately determined by personal talent as a discriminating success factor, in an apparently unstructured process where accumulated experience results in abductive confidence. Within the systemic context of Castells' *"informational economy"*, this might be a valid principle to generate *"genius forecasting"* knowledge. However, not to be taxonomically classified as validated "research" in a complex context like a corporate organization, mostly geared towards positivist notions of endurance and repeatability. At the same time one has to acknowledge how contemporary design and architecture operate on research extensions that are pervasive and seamless to their practices and theoretical elaborations. OMA, the architectural design firm by Rem Koolhaas, has been mirrored along the decades by its sister research company, AMO. Purely founded and managed to generate teamwork based design research output; constituting the intellectual backbone of academic and publishing thought leadership (Ratti, 2015, pp.12-13). "Design" can be therefore validated as a source of knowledge generation and, as reiterated above, as an optimal multidisciplinary constituency for "future-making" to the point that affinities between these two domains might appear hypothetically structural. Ultimately, a challenge can be scoped and specified, namely how to translate "design" visionary (and visual) power into a systematic competence for futures research beyond the creative spark and genius of individual "guru's".

4.2.2) Design Districts as networks of participatory creation

"Design doing", or the everyday practice of design, should never be regarded as the individual effort of a novel Prometheus (Ratti, 2015, p.9). On the contrary, as Munari indicated, teamwork is a natural modality of design practices, especially in corporate context; *"The corporate practice of large firms, which relies on bureaucratic features and the segmentation of professional knowledge, can comprise multiple teams of designers, engineers and production specialists under the aegis of both a chief designer and project administrator. The mode of organization usually encompasses departments, project teams, studios, or a combination of these methods"* (Donchin, in: Herbert, Donchin, 2013, p.2). Nevertheless, the authority and charisma of the designer, the architect, and the creative leaders do play a key role and behind them there is an output modality that can be described with processes like "*Trained Judgment*". A synthesis to solve this dichotomy between individual creativity, however "trained" or educated, and formalized research capabilities, might be identified in the collective nature of *"Design Districts"* as analyzed by Roberto Verganti (2006). Through his *"Compasso d'Oro"* awarded research, Verganti established strong empirical evidence to qualify "Design" not only as an economic engine but also as a socio-culturally shared process. Here, participatory dynamics might respond to different notions and requirements of innovation processes in both economic clusters and single enterprises (Pisano, Verganti, 2008, pp.83 – 85). In this context, one should distinguish a) co-creative modalities, where participation is open, mutual and inclusive, from b) contributing modalities, where some stakeholders maintain a lower status in the process with respect to others, e.g. users versus corporate business. In specific Italian districts, design-related networked processes of meaning-making are informal, diffused and inclusive, with multidisciplinary, cross-competitive cooperation through networks being perceived as a key success factor at economic level, as well as a cultural trait across all involved parties. Beyond theory, this is vividly embodied in the metropolitan province of Milan and in the region of Lombardy, where many other Northern Italian firms make up the *"Lombardy design discourse"* (Verganti, 2006, p.116). Such regional concentration finds its creative climax in the Milanese

cultural texture of an independent "creative class": *"The Lombardy firms' R&D operation, for the most part can be found neither inside the companies nor in interactions among them. Rather it comprises a free floating community…"* (Verganti, 2006, p.116). A free-floating community might represent the stable and active point of convergence of networks. This is indeed one of the specific features of the Italian "informal design process", namely its high degree of interdependency for creation, management and enhancement of multidisciplinary knowledge within networks populated by (sometimes even competing) individuals and firms within different professional fields, however sharing a cooperative mindset.

Cooperation in networks is defined by Manuel Castells as the *"ability to communicate across different networks"*: It requires *"inter-operative communication codes" and the "access to connecting points"* (Castells, 2009, p.20). As anticipated above, networks include relevant global nodes or exclude residual locales by *"…defining their own power relationships on the basis of their programmed goals"* (Castells, 2009, p.44), exercising what Castells defines as *"networking power"*, where the key function is "gatekeeping" (Castells, 2009, pp.42 - 43). Hence the focus is on the regulation of participation and membership of actors to specific network constellations. Then, for reasons of efficiency and effectiveness, shared standards are required to run the network, resulting in protocols that enable the imposition of shared and accepted rules; this is defined by Castells as *"network power".* Lastly, with *"network-making power"* Castells identifies the key operational modalities that actors can embody or encounter within networks (adapted from: Castells, 2009, p.52):

a) *"programmers",* actors who own the *"…ability to constitute network(s), and to program / re-program them in terms of the goals assigned to the network";* and
b) *"switchers",* actors who own the *"…ability to connect and ensure the cooperation of different networks by sharing common goals and combining resources, while fending off competition from other networks by setting strategic cooperation"* (Castells, 2009, p.45);
c) additionally, focusing on the processes beyond the function of actors, *"metaprograms"*ensure that *"…the recipients of any cultural discourse can internalize specific categories for meaning-making, in accordance with network programs".* Metaprograms appear equivalent to the system operating software of Information Technology machinery.

Based on the above modalities, "design" plays the function of what Castells defines as metaprogram. *"Metaprograms"* are equivalent to "the kernel" that enables all other network programs to run. "Design" is a texture-rich semantic aggregation within our Informational Society, and one of such key operating metaprograms. This because "Design" acts both as a motive in cultural discourses (Castells, Grudin) as well as being operationally adopted for the creation and execution of strategic projects (Fry). "Design" might generate a new way to conceptualize knowledge in formal terms, if not "scientific", based on action and reflexivity, aspiring at reconnecting planning with "everyday vernacular". In this new field, "Design" might claim an equivalent leading role to the role that Cartesian positivism played in the transition from Enlightenment to Modernism. With this potential hypothesis in mind, it is proposed that Italian Design Districts might be conceptualized as a network-based, cooperation-focused model of knowledge generation.

With cooperation at its heart and with characteristics that range from informal

communication to radical thinking, the Italian Design Districts self-generated a model that since the end of WWII served the cultural, economic and financial interests of Northern and Central Italian small/medium high end enterprises. Beyond specific project deliverables at company level and product shipment at market distribution level, Italian vernacular design networks are rooted in the local dimension of communities of practice that organically generate, govern and valorize "knowledge". Such "knowledge' might be present at the end of the design project in the form of reflections, insights and findings as accumulated along the collective work. Or it might be stratified in the phases of the design process, in the form of people research first, aesthetic research next, investigations into production processes and so forth, from conceptual to manufacturing stages. Such "knowledge" might or might not be made explicit in the social production processes elicited by Julier to justify his conclusion that Design is a cultural agent. Verganti's model describes a knowledge generation process, by nature "*experiential"* (Lincoln, in Reason, Bradbury, Eds., 2001, rep. 2004, p.128) and "*relational"* (Park, in Reason, Bradbury, Eds., 2001, rep. 2004, pp.82- 83). These qualities are mission-critical for the functioning of a specific "eco system", given the key role that informal networks play in the "creation game" of Italian design. Potentially, one step further, it might also be possible to identify traits and products that might be associated to a more critical reflection on today's contextual reality, as manifestations of critical thinking or alternative lifestyles (Branzi, 2006, pp.18-19). As a possible analogy, it seems fitting that the informal networks of centers of excellence that underpin the success Italian design could be related to Habermas' organic lifeworld, given their rooting in the local geography, in communities of practice and their organic "reflexive loops" being an integral part of their value generation. One might observe that in absence of such "feedback loops", there is simply no value generated in the network due to the absence of knowledge to share. Action Research requirements might appear in line with such qualities of postmodern design.

4.3) HIGH DESIGN AS ENGINE TO ENVISION PREFERABLE FUTURES

A next challenge to be investigated is how "Design" might work with equivalent "Design District modalities and outcome" in global, formal, less human-scaled systems. Where, decisions are taken by engineers and managers on the basis of Cartesian and positivist frameworks. Those corporate professionals might appreciate the benefits and profits of any "design premium", without however consequently accepting the hybrid and somehow peculiar nature of *Design Thinking* from the viewpoint of its organizational requirements and implications. Within the systemic context of a global corporation, a postmodern design vision, substantiated by a method and a process that might be related to the Lombardy regional model for some of its fundamentals, is the above foreshadowed "High Design"; the approach in use at Royal Philips NV of The Netherlands: *"High Design is a human-focused, research based, design management process for repeatable business success. High Design integrates the input from socio-cultural disciplines and people research, and then makes that information and insight the starting point of every design project"* (Bevolo, Gofman, Moskowitz, 2011, p.188). In its people focus High Design finds its element of differentiation and a strong humanistic foundation. High Design is operationally structured in five phases:

a) Initiation, where project scoping and CRM would establish the operational foundation for the activities to follow;

b) Analysis, including Foresight, where human sciences would generate their integrated contribution in the form of qualitative research, in order to gain insights and define socio-cultural values and aesthetic preferences with a scope of 2 to 10 – 25 years, depending on the project or the program;
c) Concept Creation, where the combined effect of research findings and creative talent would generate hypothesis, ideas, visions, sketches;
d) Execution, where concepts would be translated into viable propositions and products, feasible in terms of realization and sustainable in terms of commercialization (e.g., ratio costs versus expected profits);
e) Evaluation, where formal feedback loops would enable assessment and improvement plans, based on performance.

This approach was defined and structured into a corporate process in 1990-1991 by Stefano Marzano. Marzano is an architect and designer deeply rooted in the academic and design-practice context of Lombardy. At the time when he assumed managerial leadership at Philips Corporate Design headquarters in Eindhoven, Marzano was VP of Corporate Design at Whirlpool, in Cassinetta, Italy, with an educational extracurricular role at Domus Academy of Milan, an educational institution that might be considered a direct offspring of the "Design District" model.

4.3.1) High Design versus High Tech

In his presentations and lectures, Marzano himself regularly put a strong focus on his personal roots and his connection to the *"savoir faire"* of Italian custom made tailoring since, as a child, he observed his grandfather's in his own professional atelier, dealing with creation and with customers. Marzano placed there a pivotal moment in his reconstructed biography for the public (Marzano, 1998, p.21). In his corporate role, Marzano had to leverage such inherited *"savoir faire"* however not in a small local business scope but in a highly complex, international context. At the time of Marzano's appointment as Managing Director of Philips Corporate Industrial Design (then CEO of Philips Design), in the early 1990's, an organizational tension naturally arose within a High Tech corporation like Philips, where:

a) In the modernist/positivist context, "technology" (and engineering) did lead, as expression of future "inevitable" solutions (as defined in linear, Cartesian, scientific roadmaps);
b) In the postmodern context, "design" might drive, as synthesis of future values and human insights, determining preferable functions and purposes as based on High Tech applications, to be rooted in their meaning and purpose.

From an organizational and functional perspective, "High Design" was born within Marzano's team to counterbalance the technical rationality of the engineering and scientific internal culture of a High Tech corporation, in order to integrate into the industrial planning process specific features from humanities and sustainability (Marzano, 1998, pp.11 through 17). Such mission was established since the launch of the first "High Design" manifesto, printed by Philips in 1991 with the title, *"Flying over Las Vegas",* being closed by the following statement: *"…Design in a world of high complexity should no longer be a case of clever individuals or teams creating products in splendid isolation, but of multidisciplinary organizations or networks creating 'relevant qualities' and 'cultural spheres'. If we're to make a quantum leap from the limited materialistic and quantitative market to the unlimited, more spiritual and qualitative market, then we must*

provide the design worthy of it" (Marzano, 1991, reprinted in: Marzano, 1998, p.16). In the High Design approach, "Design" is therefore a knowledge-based, information-rich, network-enabled method, way beyond "industrial" product and packaging articulation. High Design was systematically positioned as a continuous trigger for *brand theming* through innovation. By 2002, "Strategic Design", the organizational team that perhaps through the two decades that separate the first manifesto of High Design from Marzano's retirement as CEO, in 2011, incorporated on its payroll, straight at the heart of its process, a full range of specialists in humanistic disciplines. With a staff that came to include 15 to 25 anthropologists, sociologists, psychologists, human factor specialists, visual trend analysts and more dedicated expertise (Bevolo, Brand, 2003, p.33) with the vision and the mission to semi-independently study preferable futures at multidisciplinary level. Examples thereof were included as sources in the earlier chapters, and city.people.light is one of them.

4.3.2) High Design as network-focused corporate process with people focus

By once again re-connecting with the taxonomic scheme of "systems/lifeworld" by Habermas, the analytical possibility exists to associate a) the Cartesian world of high tech and past approaches of architectural urban planning and landscaping to the linear notion of "systems", whereas b) High Design might be seen as an effort to inject corporate planning with the "vernacular of the everyday" *(elaborated from a conversation with H. Mommaas, e-mail communication, 10/07/2012)*. This by means of a) integrating human sciences at the very heart of the design process and b) by elevating the design process at strategic levels in the organizational charts and project practices of the corporate system. As an organizational process governing a corporate and business design competences, High Design structures its projects according to "phases", namely, as anticipated above, a) an exploratory initiation; b) specific analysis and futures research to determine socio-cultural values and scenario as anticipation of the future, c) concept creation, d) execution and e) evaluation (adapted from: Bevolo, Brand, 2003, 34-35). More recently, the key stages of High Design were bibliographically described as three:

"…*a) understanding and exploration; b) proposition and direction setting; c) 360 degrees creation…"* (Kusume, Gridley, 2013, p.152).

Furthermore, it might be added how the four modular constituencies of futures research introduced in Chapter 2 (Monitoring, Interviewing –given the absence of a fully specified and executed Delphi-, Workshop Management, and Scenario Planning) might be leveraged to describe the specific analytical and conceptual early phases of High Design. It is important to stress the reiterative, repeatable nature of High Design as an organizational process aimed at reassuring corporate leadership about the structural and systematic value of design. In this sense, High Design is based on a rational promise of repeatable business success by a systematic research-based process. In these modular steps (e.g., "analysis" or "concept creation"), multidisciplinary teams engage in mixed method, ad hoc research designs across human sciences and futures studies, with the purpose of servicing specific customer needs. While social scientists monitor trends and developments, designing and performing dedicated qualitative studies, designers themselves might devise and join workshops, offering their synthetic thinking and visualizing capabilities to envision and specify scenarios. It might be indicated how the "cultural discourse" associated with High Design (and its research foundation) has historically been greatly focused on future-making, specifically on preferable futures. The

origin of such future orientation exactly lies within the circumstances that saw High Design emerge in a High Tech, scientific research driven corporation. In order to consult management on how to attune new applications to the market, High Design teams had to anticipate and understand people's future preferences in a repeatable and actionable way, so that the selection of preferable solutions and applications from a vast portfolio of scientific patent might translate in business success by anticipating people's future "needs and wants". Hence, the need of a futures research competence. The nature of this commitment to future explorations might be described as follows (adapted from: Bevolo, Price, 2006, p.7):

a) *multidisciplinary, as proven since 1960's "Wild Cat" cross-competence projects performed since the 1970's, with designers, engineers and scientists joining the same teams and the same creative process;*
b) *action-oriented, as in the natural mindset of designers in terms of their own ethos and professional narratives;*
c) *focused on preferable futures better than "doom scenarios", to fulfill a specific role in corporate and business innovation processes and growth engines.*

Business success might ultimately translate in multiple ways, e.g. in terms of a) financial value (profits and sales) and/or the enablers thereof, in the form of b) corporate reputation and commercial relationships (thought leadership, reputation and profiling, perhaps in synthesis the corporate equivalent of Castells' "barter"). In spite of its corporate context and role High Design maintained fundamental qualities equivalent to those detected by Verganti in the Lombardy model. It was network-oriented, it was multidisciplinary, and it was open to non-competitive collaboration in contributive mode. This was proven in several experimental projects with non-Philips companies over the years; e.g. the 2001 *"Paesaggi Fluidi"* program with Italian leading furniture and lifestyle brand, Cappellini (Marzano, Ed., 2005, pp.736 through 749). At the same time, it must be stated how preserving the strategic intent and ethic drive of High Design was not an enterprise void of challenge or compromise. Most notably, High Design has faced, in its very essence, a deep contradiction between its humanistic vocation ("always keeping people at the center"), and its corporate focus ("guaranteeing repeatable business success, to be measured by means of corporate metrics"). One might notice, how "business repeatability" here might play an equivalent role to "endurance" in research epistemologies as highlighted by Gergen above (Gergen, 2014). This is once again a feature bound to reassure and confirm the validity of a postmodern approach conceived and deployed in an engineering –hence fundamentally modernist- context: *"Over the past 80 years, the company [NOTE: Philips] has evolved from one that used design as little more than afterthought, into the home of the world's most renowned design studios. It pioneered multi-disciplinary, people-focused approaches, created visionary projects, and worked hard to create the integration of design into its parents' business strategy. But this approach did not always translate into discernible profits"* (Gardien, Gilsing, 2013, p.55). Since the very inception of High Design in order to anticipate, mitigate and manage its natural impossibility of specific profit-making discernibility, "business success repeatability" was made into one of the key corporate elements of its discourse as hygiene factor. From its start, High Design was therefore bound to be evaluated in terms of successful performance in terms of business relevant indicators, guaranteed by the adoption of ISO Quality Standards and other tools of corporate assessment; e.g. Net Promoter Score, or NPS, from the late 2000's onwards, in line with the rest of the corporation. NPS is a managerial tool designed to measure the quality of relationships in a quantitative fashion. With the specific purpose to support growth, specifically focusing

on customer satisfaction and probability of their brand referral to third parties within personal networks (Reichheld, 2006, pp.41 - 42). Main focus of High Design is therefore on the creation of value in a corporate context, according to liberalist business standards, by anticipating the future in postmodern ways, and as such, focusing on innovation.

4.3.3) High Design and Innovation Horizons

The natural ambition, in the business environment of a High Tech corporation, is to perform *"…in line with Christensen's description of 'disruptive' innovation as a process that creates a new market and value network, eventually displacing established competitors (Christensen, 1997)"* (Gardien, 2015, p.12). Being Philips Design a corporate service unit there was an additional internal communication challenge, namely devising and deploying the appropriate arguments to motivate internal decision makers of financial and engineering background to support futures research. The collective ability of Philips "design leaders" to generate tools and engage in conversations about key economic and business dimensions of the enterprise has historically been at the core of the Philips Design challenge. Namely, in terms of relationship management Philips Design identified the priority to shift from being a one off "ad hoc supplier" to business management, to achieve the status of long term "strategic partner" to corporate leadership in matters of innovation (Gardien, 2015, p.107, limited to the graphic visualization). With "innovation" being defined as *"…the creation of new meaningful and relevant solutions that enable value exchange, based on a break from the existing understanding of people, technology and business, establishing new domains"* (Gardien, 2015, p.23). Here "Design", as described in Chapter 3, is challenged at the parallel levels of a) anticipating the future, on one side, and b) making it understandable and palatable to wider audiences, including its project and program internal commissioners, on the other side. Of course, always keeping people and their priorities at the center. To do so, a specific capability of meaning-making through simplification might have been mission-critical.

In particular, it appeared as a strategic priority to invest in a set of tools (based at best on a thought leadership rationale) to clarify and justify innovation investments. Especially in the face of the concrete possibility of failure connected to any experimental project; *"In general, designers are trained to solve design-related problems, while researchers are trained to develop generally applicable principles. There is quite a difference between the two. The former is about avoiding mistakes, whereas the latter often involves making mistakes that enable fast learning…. Three specific forms within design and art research were identified and used as a framework for further understanding the way the practices of design and research can be viewed in respect of each other. Namely, they were research into, research through, and research for art and design"*. (Kyffin, Gardien, 2009, 57-69). One might notice how the rhetorical balance of the premise swings between those of scientific research and artistic pursuit. This matches the basic model by Munari as described above. In order to further simplify, specify and visualize the *"…non linearity of progress"* (Gardien, 2015, ix), a tool capturing a specific hierarchy of innovation "horizons" was adapted from an earlier publication by McKinsey authors, injecting into the authority of such consulting roots the power of the "Design discourse" (Kyffin, Gardien, 2009, pp.57-69):

"In order to better understand the innovation territory, it is helpful to refer to a model described in "The Alchemy of Growth" *(Baghai, Coley, & White, 1999). This model is*

based on the claim that companies have to manage these three different horizons simultaneously in order to be able to innovate effectively. The three horizons are:

> *Horizon 1: Defending and extending the company's core business*
> *Horizon 2: Developing new business*
> *Horizon 3: Creating viable options*

These three horizons can be shown in relation to the Gartner Hype Cycle (Linden & Fenn, n.d.) which describes the path new technologies take as they are hopefully established in the market... This curve identifies five distinct phases: the technology trigger, inflated expectations, disillusionment, enlightenment, and productivity. In this case study, this curve is interpreted to mean that often the real application of a technology is not in the area in which it was initially envisioned. After the initial hype (inflated expectations) there follows a period of disappointment during which there is less interest in the technology. This dip, however, indicates that the true application for the technology needs to be found, after which comes a period of sustained growth".

Specifically, the Three Horizons model of innovation also realistically frames the possible functions that innovation might play, depending on the specific scope of its ambition, adoption and implementation (Kyffin, Gardien, 2009, pp.57-69):

a) *Horizon 1:* e.g in the case of a next generation of a current product that will naturally replace an older generation on the basis of newly appealing aesthetics and limited technical improvement of the same functionality;

b) *Horizon 2:* e.g. in the case of a prototype or experiment stretching the business boundaries of the enterprise. However, always within the same industry or sector, therefore in continuity;

c) *Horizon 3:* e.g. in the case of a disruptive prototype or experiment, radically *"reframing"* (Benammar, 2012, pp.9-11) the vision, mission or strategy of the enterprise, therefore not in continuity.

To translate the above principles in practical examples, in the world of digital appliances, a proposition at Horizon 1 level might be the next generation of mobile phone by a mobile phone maker with improved computing functions and renewed aesthetic look and feel. Or for an automobile brand, Horizon 1 might be represented by the next generation of a standard car. A proposition at Horizon 2 level might be an extension from mobile phone to tablet PC, therefore naturally stretching the portfolio however within the same category (mobile communication devices). Or in the automotive sector it could be a new fuel technology engine potentially leading to a change in continuity, e.g. fully compatible electric hybrid. A proposition at Horizon 3 level might be the introduction of the self-driving car under the brand name of the same mobile phone maker, which would suddenly break through into the mobility business, in a totally new context and with a radical redefinition of its brand and its categories. In practical terms, the above hierarchy helped Philips Design management to articulate project proposals or justify budget expenditure within the corporate rules and rituals in existence at Philips, explaining when the teams where "designing for today" (Horizon 1) or "designing for tomorrow" (Horizon 3) (Gardien, 2015, p.22).

The above analysis should be contextualized in the wider circles of innovation

discourses held in the last three decades. One might identify in this relatively simplified view of innovation cycles a reduction to applicable flexibility of analytical models like Perez' Hype Cycle, articulated and adapted on a specific scope (De Ridder, 2014, pp.38–42). Such an innovation framework, and the related bibliographic evidence and anecdotal insights, provide an example of how a future-making design practice strategically moves in the interstitial and hybrid gaps between business consulting and thought leadership. Enacting what, in the light of DeCerteau's analysis of the "proper", might be described as an *"appropriation tactic"*, structured as a recurring moment in a long term "campaign" aimed at earning the credibility and authority to operate at corporate managerial levels beyond the scope that design used to organizationally reach before postmodern times.

4.3.4) High Design as future-making multipurpose strategy

As a pivotal example of organizational turn within Philips, '*Vision of the Future'* is herewith introduced as specific High Design-based program for strategic futures, at the heart of its mid-1990's commitments to innovation. '*Vision of the Future'* enabled "design" focused processes to actually reach into a further future than the time limits of technology roadmaps at its time, by means of its specific multidisciplinary methodology. Given the typical relationships of strength until the 1990's between scientists/engineers and marketers/designers within Royal Philips NV, once again a corporation with a strong history and tradition in scientific research and engineering of "inventions" based on High Tech, the specific internal challenge existed in communicating the benefits of design-led futures research projects. A *"multipurpose"* strategy was therefore deployed in response, as the systemic extraction of multiple benefits from limited investments. Its main goal was multiplying the exploitation opportunities of any specific deliverable or action. It must be specified how no documental evidence records the specific moment of this event, therefore this specific historical reconstruction is based on indirect sources only.

Since the mid 1990's, the valorization and dissemination of research results has been a structural aspect of the strategic investments by Philips Design in futures projects and programs. One might state, it assumed a key role in this multipurpose strategy. As already described in Chapter 3, the reflexive ability to generate both a) knowledge; as well as b) memorable communication might be identified as a key constituency of postmodern design. The creation of a commonly shared, c) (semi) public space for exchange might be seen as an integral enabler of participatory futures explorations. Hence, offering another (third) touchpoint between the two domains of High Design and Futures Research. Over the years Philips Design matured an increasingly more effective capability in terms of creating a communicative space around its futures/innovation programs. Shifting from specialized design press to generalist media, with the additional "multipurpose objective" to stimulate potential research partners, from Levi's to Nike, to aforementioned Cappellini, this became a peculiar competence, especially when benchmarked against other equivalent design centres in the 1990's and 2000's (Sony, Samsung, Apple). For example, the specific *"Vision of the Future"* program of 1995 (Marzano, Ed., 2005, pp.683-711) was exploited by means of a book, a traveling exhibition and an Internet website. The purpose was to present more than 50 concepts of digital futures (in terms of formal language, or styling), by means of non-working *maquettes* and educational videos (Lambourne, R., Feiz, K., Rigot, B., 1997, p.12). In the mid 2000's, on an even greater scale of multipurpose ambition, the *"Next Simplicity"* programs, equivalent to *"Vision of the Future"* in terms of philosophy and process, were generated as content for worldwide roadshows and for public relations, with particular

focus on international media (Bevolo, Gofman, Moskowitz, 2011, p.216). Thanks to its visibility and investments, *"Next Simplicity"* might have represented the climax of this multipurpose strategic approach.

As anticipated, according to the multipurpose strategy principles the same assets; e.g. co-created ideas from a workshop, should be used to a) generate business innovation roadmaps; b) generate communication materials and thought leadership assets in the public sphere and c) generate CRM opportunities by being shared with non-competitive potential consulting customers. The principle is to leverage every asset generated in multiple ways, in order to justify the investments made according to different measurable parameters, e.g. a) number of products to market within a given time, e.g. five years; b) number of contacts and quality of PR visibility and c) number of consulting leads and conversion into commercial projects. In order to value the positive impact on brand reputation of initiatives like *"Vision of the Future"* or *"Paesaggi Fluidi"*, one might have to critically evaluate first: how do media work, when "Design" aspires to become one of their potential assets for broadcasting or narrowcasting? Generalist and trade media are indeed universally geared towards stories and messages, especially those involving the future. Media seek memorable narrative structures to reach, appeal and impact their audiences clearly identifying some narrative "building blocks" as media appealing triggers. From formalized structures (with para-scientific ambition, sometimes) to informal communication practices multipurpose strategy positioned High Design projects and programs as dynamic "communication agents" within "storytelling" lines and strategies, for the best benefit of Philips in terms of *brand theming*, positioning and profiling. The *"multipurpose strategy"* is the specific High Design approach that peculiarly connects the focus of research with the opportunities of mass media and digital channels, leveraging visionary studies within the glamour of international events (Kusume, Gridley, 2013, pp.199-200) in an integral pursuit of the future, from theory to action, from kitchen toasters to the planning of cities.

4.4) URBAN FUTURES BY DESIGN: THE CITY.PEOPLE.LIGHT APPROACH

This Chapter 4 so far provided an overview of key topics to understand the roots and the basics of High Design; from bibliographic sources to factoids, from personal biographies to corporate processes, from vernacular practices to multipurpose strategy. Shifting the focus from generic strategic design to urban futures, the High Design application for city outdoors is the flagship program, "city.people.light". The program, at the moment of finalizing this PhD manuscript, is formally owned, financially operated and operationally facilitated by Philips Lighting, without any residual involvement of Philips Design. It can be described as: a) scalable, b) design-led, c) knowledge intensive, d) participatory oriented, e) socio-cultural-focused exploration of future urban outdoors for the purpose of lighting innovation. In its full-blown scale it was performed a first time (1996-1997) by FutureConceptLab, Milan, also identified as the Trends Lab, and Philips Design on a mix of self-initiation and possibly an assignment by Philips Lighting. A second time (2006-2007), with a 10 years hiatus, city.people.light was globally performed as its natural scope of validity (Bevolo, Ed., Pereira, Venzke, p.6). Furthermore, a number of spin offs or adapted editions, e.g. by scaling down, have been designed and executed through the decades. In total, there have been three editions of city.people.light that might be considered representative of the approach; 1996 (global), initiated and executed by Philips Design; 2006 (global), initiated by Philips Lighting and executed by Philips Design; 2011-2013 (European), initiated by Philips Lighting and executed without

involving Philips Design. It must be clarified how an administrative and legal line existed since the late 1990's, establishing the differentiation between Philips Design, Global Service Unit selling its consulting service to Philips internal customers, and Philips Lighting, a market sector and business unit, purchasing consulting services from Philips service units at commercial conditions. Due to contextual and historical circumstances that will be further presented and probed in the primary research section of this PhD, such territorial line was divisively strong in organizational terms. This particularly in the years generating city.people.light 2007 book. While both entities were part of Royal Philips NV, there are clear differences in terms of professional culture (managerial versus creative), background (sales and marketing versus design) and priorities that justify the need to mention the financial allocation, hence the formal control, on the process. This crucial point for primary data analysis will however not be factored in this Chapter 4, where the focus is on the "design qualities" of city.people.light from an epistemological and operational level, as based on bibliographic sources, irrespective of financial ownership and related dynamics. In terms of futures research, in all editions, mission-critical features of city.people.light are a portfolio of socio-cultural drivers and their matrix as one of the most formal features of the High Design portfolio. Such specific research constituencies require due introduction and definition.

4.4.1) The urban futures matrix: rationale and roots

Besides being a corporate approach, the *"multipurpose strategy"* represents the formalized emergence and consolidation of an informal "soft" capability in generating, consolidating or validating preferable futures within the Philips Design practice (e.g., expressed by networking and valorization). Complementary to such "soft component" of High Design, the adoption of socio-cultural drivers and matrix tools represents a "hard component". This is a point where social sciences are formally integrated in the process. In earlier chapters above, the representational principles of a matrix for futures research purposes where introduced, e.g Kuosa (2012). Building correlations across different sociological concepts by means of graphic matrix tools is indeed not rare in social sciences literature and in consulting practice. Castells generates his *"typology of cultural patterns"* (Branded Consumerism, Networked Individualism, Cosmopolitanism, Multiculturalism) (Castells, 2009, 120, Fig. 2.6) by graphically organizing "around them" a matrix, with

a) *"sets of values" ("individualism" versus "communalism") as the vertical axis and*
b) *the contextual typology thereof ("cultural globalization = planetary/ universal validity" versus "cultural identification = geographic / historic specificity") as horizontal axis* (Castells, 2009, p.117).

The result is a visually effective synthesis of the extensive reflections where these concepts are grounded. Additional to its elegantly efficient compression of data and information into one simple and immediate graphic scheme, such a matrix by Castells has an additional quality. It is an actionable research tool where findings are captured, with the possibility to efficiently depart for further communication and elaboration, e.g. in educational lectures, workshops or further research project. Retrospectively, although unrelated as far as bibliography can probe, a High Design matrix might be seen as an applicative declination (across different domains) of Castells' scientific principles or Kuosa's consulting attuned tooling.

Visually, a High Design matrix offers a number of "cells", each derived from the

combination of socio-cultural parameters (horizontal axis, representing drivers of change in society) with ad hoc business specific parameters (vertical axis). Operationally, the matrix is used to generate and manage futures knowledge at different stages of the analysis phase of High Design, namely:

a) in the phase of a preliminary qualitative study, e.g. equivalent to aforementioned Interviewing, the matrix offers a first framework to structure comparable interviews and/ or to determine specific topics for validation
b) in the phase of co-creative workshops with professional users, the matrix offers a framework for discussion and a facilitating tool to enable participants to self-reflect and generate ideas according to a systematic scanning of preferable future concepts.

Since the mid 1990's, this portfolio of socio-cultural trend knowledge was optimized, enriched and expanded over the next decade. This led specific matrixes to be generated with applications to a vast range of industry sectors, from personal care and domestic appliances to consumer lifestyle, from semiconductors to urban futures. In this context socio-cultural drivers were reviewed and maintained since 1996, both generically (how the world will societally evolve) as well as specifically (how cities will strategically evolve). It should be recalled how, through various corporate programs and business projects, the "socio-cultural trends" of the mid 1990's were augmented, enriched and constantly validated. This led to the development of a number of generic "socio-cultural drivers" to be adapted in each specific project to different domains. Collaborations with a number of knowledge institutes and experts, in addition to proprietary research, enabled leveraging such "socio-cultural drivers" as "on going" "black box". Practically, the drivers were centrally managed within the Strategic Design team, being generic repositories of information, data and findings. Over the years these items would therefore grow from just "trends at a given time" to actual tools to monitor "trends in the making". Drivers flexibly offered the possibility to extrapolate dedicated data aggregations for specific projects, depending on ad hoc regional or sectorial frameworks. At the heart of city.people.light, a matrix is therefore governing the qualitative research flows.

4.4.2) A city.people.light program: 2006 global matrix specification

For the purpose of this introductory Chapter 4 the focus will primarily be on one global edition of city.people.light, executed by Philips Design. In the context of this paragraph the main focus will therefore lie on the 2007 book edition of city.people.light, here introduced as "bibliographic source", later as "research object", with particular attention devoted to the following features:

- the design and deployment of the socio-cultural matrix within the program (Bevolo, Ed., Pereira, Venzke, 2007, p.13);
- the design and deployment of the qualitative study to populate the socio-cultural matrix with urban futures content, with particular attention to networking related aspects;
- the creation of a communicative space within and beyond strategic innovation workshops, with the genuine purpose to extend the dialog within the urban design communities over time.

This Urban Futures Matrix constituted a major reference for this PhD study. These three specific areas will be further presented, in order to present both formal rationale and

operational aspects thereof, starting from the Urban Futures Matrix itself. The final 2006 city.people.light matrix tool was formed by 16 cells, determined by the cross-referencing of four socio-cultural drivers (a representation of the evolution of societies in time) with four urban strategies (a representation of immanent approaches taken by cities to determine their own destiny). For the purpose of a global project involving Europe, Asia Pacific and the NAFTA countries of the American continent, Philips Design generic research indicators, trends and data were edited into four specifically customized socio-cultural drivers, capturing the relevant future insights to be made actionable throughout the program (Bevolo, Ed., Pereira, Venzke, 2007, p.13). The specific program-related adaptation for this set of knowledge assets resulted in the definition of the following socio-cultural drivers to populate the horizontal axis of the matrix (Bevolo, Ed. Pereira, Venzke, 2007, pp.11 - 12):

a) identity;
b) exploration;
c) belonging;
d) sustainability.

This starting point as elaborated from the Philips Design "knowledge basket" was then validated, elaborated and critically enriched through qualitative primary interviews (Bevolo, Ed. Pereira, Venzke, 2007, pp.6 - 7), resulting in a dedicated interpretation of the drivers for the purpose of urban futures generation. In this process of fine tuning, for example; with respect to 1995 the year of *"Vision of the Future",* the impact of globalization and the early signals of credit crunch determined the focus of "identify" to lie more with the challenges of individuals and the potentially derived alienation. At the same time "exploration", as a driver, absorbed a 1990's "connectivity" trend. "Belonging" represents the merger of earlier "sociability" and "connectivity" trends to cover preferable futures related to urban communities and neighborhoods. While "sustainability" added more dimensions to the earlier notion of "ecology", as split in "ethics" and "holism", perhaps the most outdated reference in the matrix.

Having introduced the horizontal axis of the city.people.light Urban Futures Matrix, it must be mentioned that a different principle led to the design of the vertical axis. Across the history of humankind, cities have been envisioned, planned and managed according to a number of different, yet sometimes equivalent or even recurring principles (Mumford, 1961; Hall, 1988 / 2002). On this basis, a more drastic tool modification was implemented in the new definition of the vertical axis of the city.people.light 2006 Urban Futures Matrix. In the 1995 *"Vision of the Future"* and in the 1996 first city.people.light exercises, this side of the tool appeared to focus on generic human experience. In order to offer a more actionable support in the workshop process, the 2006 version specifically elaborated such generic character into fixed "urban strategies". The four "experiential parameters" of the 1995 matrix were re-worked into "city strategy parameters", describing potential ways to organize ad position a city, regardless of the moment in history:

a) "Accelerator City" describes cities organized as catalyzers for economic growth and commercial exchange, e.g. contemporary Singapore
b) "Memory City" sees contemporary urban centers might choose the re-qualifying strategy of investing in their past and history. Hence, embodying the need to preserve the cities of yesterday for the future.

Both “Accelerator” and “Memory” are descriptors of how cities might trigger change over time. However, the spatial dimension of urban futures also required due presence in the tool. Next to “Accelerator City” and “Memory City”, therefore, the couple of parameters including “Iconic City and “Connecting City” was included to complete the city.people.light 2006 matrix:

c) “Iconic City” describes cities where notable investments are made to create new physical objects to stand as signs and signifiers;
d) “Connecting City” defined to report on the open circulation of people and goods in globalized times, with the resulting need for change in infrastructure and urban design.

Within workshops, as opposite to being a directional tool instructing program participants top down, the matrix was operationally leveraged to enable contributors to regularly map their output at conceptual level. By demonstrating which scenario-generating “fields” were still open for exploration, on the basis of the qualitative thought leader interviews and its socio-cultural foundation, ultimately made actionable within professional networks.

4.4.3) city.people.light: between multipurpose approach and research output

As articulated above, city.people.light is an urban futures / outdoors lighting-focused High Design application based on the *“multipurpose strategy”* (Bevolo, Price, 2006, p.7). Since the mid 1990’s, city.people.light has been positioned and communicated as a platform created and facilitated by Philips as an open forum for reflection and discussion about the future of cities. Beyond specific research “output” in terms of products and deliverables, the multipurpose “outcome” of city.people.light at the level of program delivery might be described with a number of potentially beneficial effects that either overall program and / or single events might generate for direct or indirect audiences. Such outcome might pertain both “hard deliverables”, e.g. innovation roadmaps, products or books, or “soft deliverables”, e.g. *brand theming*, including the valorization of findings across universities and academies worldwide, and the resulting perceived thought leadership.

There is more to the multipurpose nature of city.people.light as a *brand theme.* The open nature of city.people.light is reiterated beyond futures research and innovation, through collaborations with entities like LUCI, the international network of cities that systematically invest in urban lighting as a strategic tool for urban development. This specifically happens in the yearly, independent “city.people.light Awards”. The “Award” is a recognition being earned by the best cities in terms of strategic and concrete application of lighting. It is officially managed by LUCI and is open to candidate cities regardless of any direct existing or prospect contract or commercial transaction with Philips. Philips Lighting offers monetary sponsorship and organizational support. This platform secures excellent profiling benefits for cities with the ambition to position themselves as “places of relevance” in international networks of design and architecture. Mid-size centers like San Luis Potosi, Mexico (awarded in 2006) or Jyväskylä, Finland (awarded in 2009) or Rietberg in Germany (2013), achieved recognition for their strategic efforts in lighting design, while engaging at a higher level of perception and visibility in relevant networks. The “city.people.light” name and semantic footprint is therefore fairly disenfranchised from the specific territory of Philips Lighting direct commercial interests as it stretches even beyond the context of urban futures. With the

"city.people.light Award", the platform acquires one additional layer of meaning-making. At organizational level, all city.people.light programs and events, including the "Awards", have been evaluated by means of the standard Philips business performance indicators. These however are not related to direct sales, as the approach is instead geared towards long term value generation. For example, in terms of relationships and reputation within key networks and communities, thanks to the participatory involvement of major architects, academics, thought leaders (Bevolo, Ed., Pereira, Venzke, 2007, pp.6 - 7). This is namely embodied by:

a) the collective creation in facilitated workshops of advanced urban design concepts responding to the matrix cells, with networking involvement of leading stakeholders, urban planners and city management staff (Bevolo, Gofman, Moskowitz, 2011, pp.170 - 171);
b) the editorial production of a visual book reporting on the entire program; from socio-cultural drivers to concepts, and the profiling thereof in dedicated public events and in semi-public sessions. With the particular ambition to convert knowledge into media assets and to gain critical feedback from expert communities (Bevolo, Ed., Pereira, Venzke, 2007, p. 6);
c) the cross-fertilization of futures research findings within implemented commercial projects, both as part of the innovation roadmaps by Philips Lighting as well as commissioned by other stakeholders (Goulden, 2008). Until a next wave of futures research program is activated.

As much as the insights behind the matrix were specified as necessary for the research, the tool and its content were not designed to steer the workshops beyond loose facilitation of participatory dialogs. Within workshops, the Urban Futures Matrix was therefore used as generic reference; the tool was actually kept "blank and blind" in the course of the co-creative sessions taking place through 2006 in Lyon, Hamburg, Philadelphia and Shanghai.

In terms of workshop outcome, the challenge might arise, to either classify the output of city.people.light as "just next generation" conventional scenarios, concepts, visions, sketches and products, in continuity with the *status quo* (Innovation Horizon 1). Or, alternatively to validate at least part of it as blue-sky alternative in terms of paradigm-changing preferable futures, e.g. formulated in the "Wild Card" format of *"What if?"* questions (Innovation Horizon 3). This is an important distinction both in terms of innovation taxonomy (mirroring Habermas' knowledge taxonomy) as well as of futures research. From a research methodology viewpoint, a number of techniques, tools and features of city.people.light might match the Action Research principles, as described above, however the ambition to politically impact any existing urban situation is totally absent from the approach. It seems important to stress the peculiar care required by the management of professional networks, to be achieved by opening up a "communicative space" within and around the program, where workshop participants, as fully empowered "subjects", can freely develop concepts (Friedman, in Reason, Bradbury, Eds., 2001, rep. 2004, pp.160 - 161). There is therefore more to city.people.light as a *brand theme* than the plain design and execution of urban futures research programs. On the other hand, one might say that there is also more to city.people.light than plain *brand theming.*

4.5) THE NETWORKING FACTOR, AND BEYOND

As introduced above, relationships across networks are a central leverage point of the *"multipurpose strategy"* by Philips Design, and therefore of city.people.light, as one of its concrete manifestations. With focus on city.people.light, the aforementioned High Design constituencies including qualitative expert interviews and the creation of an actionable, neutral communicative space will be analyzed as one continuum, with "networking" at its very center. In order to address this point, a red thread across the entire PhD will be developed under the lens of networking theory (Castells). Based on theoretical insights one might even say that the requirements of "network programming" (here intended as directions to aggregate and orientate the stakeholders in networks) might appear to be aligned with the CRM long-term objectives, or at least ambitions, of Philips Lighting. In this respect, city.people.light propositions might become triggers that spark perceived value to activate and streamline relationships along the lines of its own "network programs" (here intended as lines of narrative development).

4.5.1) Networks: qualitative research field or communicative space?

One peculiar feature of High Design is its supposed ability to generate *"Co-creation Communities"* (Kusume, Gridley, 2013, pp.55-56). This lies indeed in the inclusive recognition of each stakeholder as an acceptable/accepted member. On the one hand, therefore, city.people.light might aspire to create "an open community", focusing on informal dynamics and knowledge. Social validation is a process that pertains every individual working in the "fuzzy front" of innovation (Rameckers, Un, 2005, pp.11-14). Such "fuzzy front" is one of those borderline areas of research where DeCerteau's "practices" require formal recognition to be taken on board within formalized processes, as lifestyle alternatives might be much more meaningful for innovation than linear choices. On the other hand, business performance requires to be delivered by the program to justify its own existence over time. On the mid term, this might translate in terms of derivative sales, although indirect and postponed in time in the form of projects or contracts. Networking therefore becomes key to connect commercial opportunities with stakeholders otherwise neutrally involved in city.people.light.

Beyond business perspectives, within city.people.light, "design" embodies multipurpose definitions of both (operational) "knowledge generation process" (content creation processes, e.g. workshop) as well as (socio-cultural) "agency of meaning-making" (content valorization and distribution through products, e.g. events and books). In such hybrid condition, the involvement of thought leading expertise (major architectural thinkers) takes place on the basis of what Castells identifies as the exchange of symbolic validation and informal knowledge. Or, in the form of the aforementioned "barter" as reciprocation in networking. With city.people.light, Philips Lighting indirectly aims at constituting itself as a networking actor, connecting various networks in the domains of lighting design, architectural thinking and urban planning. The program itself appears to work as a "switching" platform that is carefully managed by Philips Lighting to maintain the criteria of an independent space. Therefore, for example, the qualitative study in 2006 was designed as part of a dialog with architectural leaders. In that context, Philips Design and Philips Lighting positioned themselves specifically as creators of a communicative platform for discussion, exchange and open explorations. The interviewed stakeholders (universally reputed as "masters" of urban architectural thinking) might be defined as "programmers" within complex networks, involving media, education, politics, policies and the material execution of their own visions of urban

futures. Furthermore, a pivotal moment for the *"organization of energy"* (in line with Grudin's definition of "design" as a "way to organize energy") could be identified in workshops as a way to organize and govern the "co-creative discourse" of collective interactions according to a structuring and structured set of principles and steps.

4.5.2) Workshops: sketched drawings as collective output for a book

From a networking perspective, city.peole.light 2006 workshops saw the cooperative participation and direct contribution of leading lighting designers, urban planners and architects from US, APAC and EMEA. It is possible to qualify these professionals also as "programmers" in relevant domains, namely within networks related to urban outdoors lighting. Mostly less profiled and prominent in media and in the forming of public opinion than the thought leading architectural "programmers" who were interviewed at earlier stage (see paragraph above), these stakeholder are both decision-makers as well as regional thought leaders in strategic matters related to the lighting of cities.

By setting up a non-competitive, non-commercially purposed, communal "space of communication and collaboration", "city.people.light" 2006 managed to gather competing architects, competing designers and administrative officers from competing cities, and enable them all to systematically reflect on urban futures, and the role lighting design might play. Concepts were generated in small working groups, working as anticipated above in Lyon, Shanghai, and Philadelphia, Hamburg. Concepts were generated with minimal facilitation by Philips Design and with the availability of professional illustrators to immediately fix ideas on paper. The process led to a selection of "urban futures ideas" visualized in appealing sketches, to be collected, edited and presented to the wider public in a book format (Bevolo, Ed., Pereira, Venzke, p.2007). The paramount relevance of sketching within city.people.light processes might respond to a historical trait of the architectural profession, going back to its intellectual inception in the 1500's: "*The command of drawing –not building- unlocked the status of the architect, establishing the principle that architecture results not from accumulated knowledge of a team of anonymous craftsmen but the artistic creation of an individual… Asserting their intellectual status, architects made drawings with just a few delicate lines and imagined buildings that were equally immaterial"* (Hill, in: Fraser (Ed.), 2013, p.15). In this sense, the design and editorial lines of the 2007 city.people.light book privileged drafted sketches as a vehicle of representation of future concepts. This conscious editorial design choice might find its ultimate roots in the very history of how architecture historically emerged as a higher cultural enterprise.

In line with the *multipurpose strategy*, the city.people.light resulting book was not aimed at directly promoting the Philips Lighting catalogue of products. Its business purpose was to instead extend and profile the brand in the higher context of urban futures discourses, to position it as premium with an equivalent mechanism as the ones adopted by high end brands engaging in the cultural sector *tout court* (Bevolo, Gofman, Moskowitz, 2011, p.32). The book itself, additionally, became the trigger and the token used to extend the presence of city.people.light in various educational moments, from academic lectures to research professional workshops. Such extension of the ideal communicative space of city.people.light reached students and professionals who would not be otherwise exposed to this particular design-driven "cultural artifact" on urban futures and lighting design. Enabling further sharing, further brand cross-fertilizing and at given occasions further "switching" across different and diverse networks in architecture, design and education, the book assumes a pivotal role in city.people.light over an entire

decade after its launch as the PR climax of the program, enabling thought leadership valorization.

4.5.3) city.people.light and everyday practices

Within this Chapter 4, an additional hypothesis should be formulated regarding the networking reach of city.people.light. It is based on Habermas' distinction between "systems" and "lifeworld", which implicitly clarifies the necessity to recuperate "the" every day. This appears particularly urgent, although politically biased, in the light of the transformation of financial and technical networks into what Castells defined as *"automaton",* a self-referenced entity void of any apparent touchpoint left with human life. In this respect, the thesis of "colonization of the lifeworld" (Kemmis, in: in Reason, Bradbury, Eds., 2001, rep. 2004, p. 97) echoes the urge to form communicative spaces, embodied in networks of people, in the effort to *"de-colonize our lifeworld"* by leveraging research practices aimed at preferable futures. As a natural step city.people.light co-creative processes might therefore benefit of extended reach, within more and more inclusive networks. Optimally, city.people.light might stretch to the level of opinion leading citizens in urban communities and metropolitan regions. A crucial probing point for city.people.light in the light of earlier theoretical and bibliographic elements might therefore be; does this program already include ordinary people's networks in its knowledge generation, by design? Does city.people.light open its process and practice, to further shift the focus of futures research towards the urban every day? A first examination will naturally lead to a negative answer, as city.people.light is a business-to-business program within a corporate context. A critical reflection might indicate that city.people.light works in what Verganti and Pisano describe as the *"Elite Club"* modality of co-creation for corporate enterprises (Pisano, Verganti, 2008, pp.78 – 86). This is an "open innovation" approach that entails restricted circles of selected professional contributors only. This consideration clarifies the relatively limited scope and non-existing direct impact of the program design from an Action Research viewpoint, especially from a political (Marxist) viewpoint. Simply put, city.people.light programs have not been conceived or designed as "social innovation" opportunities for urban communities. It might therefore be clarified that any beneficial social impact might be exceptional and even unintentional, however welcome in the general High Design general narratives. Ultimately, the definition of "normative visioning" by Kuosa in Chapter 2 might be optimal to describe the essence of city.people.light, in its directional nature.

4.6) TOWARDS THEORETICAL TENSIONS

In Chapters 1 through 3, a number of bibliographic references were systematically assembled with the purpose to contextualize High Design from existing sources identified in fields of relevance like future studies, design and urban architecture. Even further, key insights then converged into the specific city.people.light process descriptions of Chapter 4. It must be highlighted how an overarching theoretical frame to justify and explain city.people.light as one specific phenomenon was not identified. This result is based on limited documental evidence and pure anecdotal recall, however it is conclusive of this Section I. A great deal of the efforts will be presented in the next chapters aims to empirically describe (through processed primary research data), reflect and react to this perceived incompleteness in the theoretical analysis. It therefore appears necessary to firstly present in more precise terms theoretical areas of potential further development. To mark the pivotal transition from theory to the empirical

performance of primary research specific "tensions" will therefore be formulated and specified, as emerging from the analysis of the first four chapters, so far. In this Chapter 4 three tensions will be sketched. In particular, the two polarities at the extreme stretch of each tension will be identified and referenced. In synthesis, "Theoretical Tensions" might be defined as follows:

- humanities vs. (formal) scientific discourse as future studies domain;
- collective participation vs. individual intuition in envisioning the future;
- social sciences vs. design as backbone of futures research.

The notion of "liminal space" as a conceptual area of generative opportunity will be introduced by foreshadowing the more elaborated analysis of "liminality" as a theoretical notion associated with future research, to be introduced in Chapter 5 below.

4.6.1) First theoretical tension:

humanities vs. (formal) scientific discourse as future studies domain

Polarity One: Humanities
Polarity Two: Positivist Sciences
Median: Action Research

In Chapter 1, Paragraph 1, the space of humanities was mainly identified with speculative and utopian/dystopian "storytelling", based on the *suspension of disbelief*, from Plato's *"Republic"* to More's *"Utopia",* from Defoe's *"Robinson Crusoe"* to sci-fi authors like Bellamy (ante litteram), Philip K. Dick, William Gibson and –differently- Michel Houllebecq's visions of dystopian futures. (Sources as specified in Chapter 1: Bell, Jacobsen, Melucci, Slaugther, Bevolo). In this respect, it must be reflected upon the speculative nature of humanities, recalling Gergen's wider concern on social sciences in terms of nihil or low direct impact thereof on society. Here, it must be reiterated how humanities, as much as utopian in the description of preferable futures, maintain a speculative, non-actionable purpose of reflection and aesthetic appeal through *suspension of disbelief*. Whereas, sciences might be described as maintaining the intent of being actionable "in the world" –as based on their discourses and practices-, in order to achieve an impact on the "real" (Gergen, 2014).

On the other hand, in order to operationally define what is herewith intended by "scientific discourse", it is appropriate to refer to the former analysis as included in Chapter 1, "Strategy to Tactics: Structuring a Space of Social Studies" of this PhD thesis:

"…the "discourse" of social sciences […] must refer to the standards and protocols of "scientific doing", therefore generating socio-linguistic manifestations that, however imperfect, must maintain a formalized and protocol nature in their structuring and in the processes that lead to their creation" (Greimas, 1976, Tr. It. 1991, p.3).

"…[…] In this light, "classic" sociology structures a "proper" territory in semiotic terms, focused on the passive, taxonomic dissecting of inert experimental objects, explanted from daily practices and isolated from their organic everyday: such "proper" is a combinatory outcome of existing power relationships within society, and a victory of space over time (De Certeau, 1984, xix)…

"[…] A social effect of this universal procedure of science can be seen in terms of the alienated divide between "the multitudes left out of the networks of scientists…" (Latour, 1987, p.180)".

Additionally, in the same paragraph of this PhD, *"The Role of Abduction and Critical Realism"* it is possible to identify the following identifiers of "scientific discourse":

- falsifiability
- instrumental rationality
- reductionism (associated to quantitative research standards)
- reification (real or virtual laboratories where practices are rendered inert first)
- semiotic discourse with its own procedures, resembling an "*automaton*".

(Sources as specified in Chapter 1: Giddens, DeCerteau, Slaughter, Bourdieu, Castells)

The above points appear being requirements to be met for the assessment of city.people.light as a "scientific discourse" in terms of futures studies. The key motive as identified in Chapter 1, for humanities driven explorations of the future, was that of "utopia" and the possible points of convergence and synthesis between literature and science were identified in Marx. In this respect, Marx was identified as a possible touchpoint in terms of combining the narrative seduction of storytelling with the "call for action" of manifestos. Here, seeking the footprint of a liminal space is possible by expanding this topic further. Namely, the perspective of Action Research offers a potential "liminal space" to further explore by means of Grounded Theory. Action Research might therefore be identified as a median point where the humanistic tension to explore preferable futures meets potential impacts on the "real". Beyond sterile speculation or positivist reification in the limited scope of the *suspension of disbelief*, Participatory Action Research is also one of the two key polarities to embody the second theoretical tension, below.

4.6.2) Second theoretical tension:

collective participation vs. individual intuition in envisioning the future

Polarity One: Participatory Research
Polarity Two: Genius Forecasting
Median: (Design Districts) Networks

In continuity with the first tension, according to the classification in Chapter 2, given the wider ambition of High Design and concrete city.people.light procedures designed to successfully involve stakeholders and activate their networks, one might expect city.people.light to naturally fall into the "participatory" notion of "foresight", and, considering the "preferable futures" motive as constant meta-narrative line of High Design, at least within the research domain defined as Action Research, as touched upon in Chapter 1 at bibliographic level:

… *"a democratic process concerned with developing practical* knowledge*, knowing the pursuit of worthwhile human purposes, grounded in a* co-creative *worldview…"* (Reason, Bradbury, Eds., 2001, rep. 2004, p.1).

In Chapter 2, further specification for this "collective/participatory" polarity was to be identified, extending the field also to informal dialogs within research processes:

"… Participatory judgmental methods represent less formal but still systematic ways of giving estimations of the most probable future…" (Kuosa, 2012, pp.24 – 25).

At the other extreme of this theoretical tension it is possible to position the practice of *"genius forecasting",* as referenced in Chapter 2, Paragraph 2:

"…The most subjective method would be the "genius forecasting", which is strongly connected to intuition, visioning, visualizing…" (Kuosa, 2012, pp.24 – 25).

This practice of *"genius forecasting"* is widely diffused in the consulting sector, especially in the design, fashion and aesthetic related fields. Such approach, largely based on abductive principles, might be referred to recurring cases of strongly biased futurologists whose work is actually closer to curatorial editing than scientific or participatory foresight" (Bevolo, Price, 2006, p.2). *"Genius Forecasting"* recalls the vision of proto-designers by Flusser and directly connects to the notion of "*Trained Judgement*" by Ben van Berkel, as articulated in the subsequent Chapter 3 and this Chapter 4.

An intermediate generative point between democratized participatory research and *"genius forecasting"* can be sketched in the diffused, organic nature of "Design Districts" and their networks, as describe by Roberto Verganti and reported in this chapter. Within "Design Districts", processes of participation are structural, enabling multidisciplinary, knowledge-based innovation that would not be otherwise feasible. At the same time, decision-making processes and evaluations are largely based on small and medium enterprise leadership with mechanisms often equivalent than those of *"Trained Judgement"*. Therefore, here lies the "liminal space" that characterizes this second tension.

4.6.3) Third theoretical tension:

social sciences vs. design as backbone of futures research:

Polarity One: Social Sciences
Polarity Two: Design
Median: Image and Autopoiesis

This third tension pertains the potential opposition between social sciences versus "Design" as a practice-oriented field. Social Sciences are herewith considered in their formal status, with the focus on the investigation of human phenomenon performed mirroring the world "as is" (Gergen, 2014) and regulated by precise frameworks:

a) at level of milestones in the process: *from theories to hypotheses to observations to empirical generalizations, feeding back theories: by connecting hypotheses and empirical generalizations, the researcher can test hypotheses, both by generating feedback to theories as well in terms of logical inference* (adapted from: Wallace, 1971 – 2009, p.18);

b) at level of operational praxis leading from one milestone to the next milestone: *"logical deduction" connects theories with hypotheses, whereas "interpretation,*

scaling and sampling" lead from hypotheses to observations, in order to enable the necessary "measurement, sample summarization and parameter estimation" that will enable the generation of those empirical generalizations that, once processed into concepts and propositions, will provide feedback into the theoretical realm (adapted from: Wallace, 1971 – 2009, p.18).

At the other polarity of this tension, "Design" is conceived in its most generic definition, as an agency channeling energy and embodying knowledge:

"Robert Grudin defines "design" in its widest sense, as the agency that "*shapes, regulates, and channels energy, empowering forces that might otherwise be spent chaotically […] realized design is a module of embodied knowledge, and much of this knowledge is transferable into the world"* (Grudin, 2010, p.5).

In postmodern terms, "Design" was specified in the peculiar approach adopted by Philips Design since 1991, as conceived and defined by Stefano Marzano:

"High Design is a human-focused, research based, design management process for repeatable business success. High Design integrates the input from socio-cultural disciplines and people research, and then makes that information and insight the starting point of every design project" (Bevolo, Gofman, Moskowitz, 2011, p.188).

High Design was presented in this Chapter 4 as an organizational principle and a cultural discourse based on knowledge creation. Here, socio-cultural disciplines are distinct yet integrated within a design process. This represents a further step in terms of integrating "design" and "knowledge" at generic level. However, at the same time meeting the challenge of establishing an own authority as innovation process within a scientific and High Tech corporate context. In this sense, city.people.light as its urban futures manifestation is bound to intrinsically oscillate between its design "practice-driven" nature, and its ambition to falsifiability, or at least formal and academic research credibility, assuming the posture of a "para-scientific" predictive discourse.

In order to define a possible space of "liminality" for this third tension, it appears necessary to define a potential touchpoint. This can be identified first and foremost in the visual necessities of design. In Chapter 2, just as an example of social sciences applied to the study of the future, reference to "Anticipatory Anthropology" by Mead was provided:

"Anticipatory Anthropology… is a mode of gathering and using available data, information and knowledge to assess future possibilities… to anticipate or visualize possible alternative future paths for the same culture…" (Textor, in: Mead, 2005, p.2)

In this context the focus on the "image" and the visual, although still within Gergen's perimeter of ocularcentric research epistemic roots, will constitute the median point. In this respect, considering the highly hybrid and cross-fertilized nature of futures research, it is appropriate to recall the potential role of the visual and the image, as highlighted in Chapter 3:

"Polak described the capacity to envision he future as a "gradual emancipation process": he noted the importance of a guiding image in helping navigate discontinuities or turbulent times" (Jarratt, 2010, quoted in: Bishop, Hines, 2012, p.238)

The relationship between social sciences and the image as sensorial stimuli was presented in the introduction to Chapter 3 (referencing Collier and Togashi, Harper, Schroeder). Extending such connection between the visual dimension of research and wider processes of *meaning-making* in the design and urban design domain (Knox, Slaughter, Bevolo, Gofman and Moskowitz) has been the next bibliographic step. An additional constituency of "Design" is related to its intrinsic self-generative power, one that positions "Design" as a catalyst in the process of *"…autopoiesis of our human context"* (Kuosa, 2012, p.72). One might therefore conclude that the "image" is the "what" design processes generated, and "autopoiesis" represents the "how" design generates itself. Both "image" as a tool and self-generative modalities of knowledge creation represent expansion opportunities for social sciences, as practiced by selected scholars and applied researchers. The power of the visual and the challenges of autopoiesis embody the very core of "Design" priorities with their material, sensorial and aesthetic manifestations in the "real" world. High Design appears to combine these two complementary qualities in its ambition to integrate knowledge while re-defining the nature of design itself.

CONCLUSIVE NOTE

As extensively examined, technology and design are in a dialectic relationship, mimicking or at least mirroring the hiatus between modern and postmodern worldviews. The positivist paradigm (at the heart of a socio-cultural sensibility organized around science and engineering as primary operational modalities) envisions technology as the determinant driver within the "progress discourse". Postmodern times however required a different, dynamic vision: *"During the XV century the word "humanism" was associated with the intellectual "summa". …the idea to embrace humanism and ignore the scientific and technological developments would have been incomprehensible! I believe the same, and this is what has also inspired my vision of the "High Design" in 1991, however I think it is time to push it further, it is time to re-establish a new "Holism", to contribute to the new creative culture, to a new Humanism to drive the epoch towards a sustainable preferable future! […] The role of the humanist was the one to create a bridge between the present and the future without losing touch with the past. This role has now to be enriched by a revival of the productive and creative thought for the comprehension of the nature of the humankind. The understanding of the reality of the physical, biological world and of the humanity that is capable to take the best from physics, genetic, bio chemic, from the research of the evolutionary theories and from anthropology and philosophy. In search of new experimental and empirical bases for more solid conclusions about the "good" and the future"*. (Stefano Marzano, quoted in: Kusume, Gridley, 2013, pp.7-8). In general terms, it was bibliographically assessed that there is an apparent conflict between the needs, demands and dynamics of "subjects" versus the condition of "reified objects". Such recurring pattern might be detected in various references: DeCerteau, Habermas, Castells, Slaugther and more.

The stage could be therefore set with "productivist reification" at one extreme and "holistic humanism" at the other extreme, with High Design aiming at an "impossible synthesis" between such extremes. As elaborated in this chapter it is a working hypothesis within this PhD that a valid analogy of High Design lies in the attempt to formalize organic processes, generated as vernacular manifestations of local/regional cultures (e.g. Design Districts), for the purpose of corporate business management. (S.

Marzano, quoted in: Kusume, Gridley, 2013, p.8). High Design appears therefore somehow compatible with the same principles that enable organic ("lifeworld") environments, e.g. Design Districts that informally function as innovation engines on a networking basis. High Design resulted in a number of visionary studies through the last decades. During these years, technological roadmaps, creative thinking and design expertise were combined to both generate and simplify the representation of preferable futures. High Design intrinsically combines the attention to reflective practices, in the form of structured project evaluations, to communication, in the form of publishing and sharing ideas and findings. This led to the first hypothesis that High Design projects could be classified as hybrid processes with the potential to reach the status of Action Science, the latter defined as *"an approach to action research which integrates practical problem-solving with theory-building and change"* (Argyris, Putnam, Smith in 1985, quoted in: Friedman, in Reason, Bradbury, Eds., 2001, rep. 2004, p.159). However, subsequent reflection and deeper examination of the extant materials around High Design (as specified in bibliography of earlier chapters) led to the educated further hypothesis that no specific scientific validation could be expected as structural in its practices, due to the limited scope of reflexive and generative practices at theoretical level in the corporate business context, normally driven by pragmatism and profit-generation in the shorter term.

If the PhD researcher had taken a different angle instead of the one of knowledge and design there might have been parallel or different articulations. For example, from the point of view of managerial organization and financial accountability, it is possible to foreshadow that in the empirical data a number of references and indications will emerge at opposite polarities between "creativity versus commerce" or "community management versus sales performativity" or "innovation costs versus profitability margins". A scholar working in economic disciplines or in financial management studies might analyze these "leads" further, into specific grounded theoretical propositions related to the tension between "artistic flow" versus "profit making", as another way to semantically frame the aforementioned "*Urspannung"* of this PhD, the "archetypical tension" between "free subject" versus "reified object". It is however a reflexive point to also observe how the choices made by the PhD researcher in his own theoretical analysis so far, and his own focus at professional and academic level somehow determined the choice of the specific fields where the three theoretical tensions exist, as formulated above. In the wide horizon of possibilities considered and reviewed at the various stages of the PhD track, a focal point, however remote or even virtual, has always been necessary to ensure the required sense of consistency and continuity in building up a specific path. In this respect, the constructivist episteme does provide the comfort of an inclusive acceptance of how personal factors influence the construction of the scientific discourse into what Greimas defined, as per earlier introduction, a semiotic taxonomy.

In the next chapter, the three tensions above will be revisited, as part of the methodological clarification regarding their role and viability for the purpose of grounded theory generation. It might be stated that these three thematic polarities highlight critical nodes as emerged in the PhD theoretical foundation, offering at the same time the necessary opportunity to conclude that epistemic and methodological choices should take into account the need to generate theoretical propositions from data analysis. In order to address them an empirical study was designed and executed, according to the methodological lines that will be articulated in the next Section II, comprising the analysis of both extant documents (e.g., books, managerial records), as well as an ad hoc corpus of expert interviews, specifically designed, executed and converted in coded transcripts.

Besides the analysis of these empirical data in the form of documentation and dialogs, two additional paradoxes were further articulated, one addressing the theoretical challenge to define the role of technology, as it emerged as crucial within Chapters 3 and 4, and one specifically addressing the reflexive challenge to manage the double role of the PhD researcher, who operated as well as Principal Research (2011 – 2014) and Design Director (2006 – 2007) in the field where the "Central Phenomenon" is generated, with key roles in the creation of the resulting "research objects". Reflexivity will of course not limited to this specific confinement, however this reflexive moment will aim at clarifying relationships and practices that inform the very existence of this PhD. Reflexive considerations will be postponed to the last Chapter 10, while the use of anecdotal evidence, drawn from recall of direct experiences and memories of the PhD researchers will be further leveraged, when and how appropriate. High Design as postmodern design approach, city.people.light as its urban futures application and the theoretical elements of the role of design in generating urban futures were investigated within the constructivist epistemic universe, adopting Grounded Theory procedures for the empirical moment of research, within a mixed method landscape. The notions of "*abduction*", as defined in earlier theoretical chapters, and of "liminal space", as identified in the next chapter in the space between structure and practice, will return as an additional leitmotiv of this PhD.

SECTION II
METHODOLOGY

SECTION II
METHODOLOGY

CHAPTER 5
FORESIGHT BY DESIGN:
A CONSTRUCTIVIST MIX OF METHODS FOR FORMAL ANALYSIS

NAVIGATOR

- to be expected in chapter 5:
  definition of Key Research Question, Central Phenomenon, research purpose; key clarification of theoretical tensions versus Sensitizing Concepts; empirical epistemology (grounded theory); reflexive and technology paradoxes; epistemology: constructivism, liminality; Grounded Theory: history and operationalization; research objects (products, processes) with case history descriptions; secondary research assets (extant documents); primary research (qualitative interviews description); validity and limiting conditions.

- references from earlier chapters that enable understanding of the chapter:
  Chapter 1 for epistemological references, Chapter 2 for general references to futures research process, Chapter 4 for High Design and city.people.light bibliographic introduction, plus Introduction to Section III for actionable deployment of grounded theory (foreshadowing).

- position / role of the chapter in the PhD study overall sequence:
  empirical / methodological, related to the primary research of this PhD.

- why the chapter is relevant:
  establishing and detailing the *"bricolage mixed method"* governing all primary research and empirical data gathering / processing in this PhD study.

- to be expected after this chapter:
  empirical Section III, starting from an Introduction to convert the epistemology and methodology into actionable steps: interview executions, transcript description, coding operational procedures, Generative Propositions development, Prefigured Codes.

INTRODUCTION

During one of his groundbreaking 1990's TV talk show appearances, while presenting the final anthology of all his works printed in the prestigious *Classici Bompiani* edition, a journalist asked Italian theater thought leader and legendary maverick performer, Carmelo Bene, whether there was method in his supposed madness. His answer: *"There is no method and there is no madness, I believe"* (Carmelo Bene, *Uno contro Tutti,* Canale 5, 1995). This statement complemented the opening of his prestigious "opera summa", where he wrote: *"The written text is the funeral rite of the oral form, it is its ongoing removal from* within*"* (highlight in italics in the original text, translated from: Bene, 1995-2008, V). That night Bene engaged in a dialog with architect and intellectual, Bruno Zevi. They both took position against the notion of "structure"; both in architecture as well as in performance arts. Bene's work, through his lifetime has been focused on

the deconstruction of language into phonetic practice and of scripted theater into *"scrittura di scena",* a director's/author's approach where language was treated as one of the several features of stage performance, in an archaic, primary, practice-driven *"impossible theater"*. A theater without representation where actors would not "enact" script lines but would perform actions to reconnect to deeper levels of signification. At the same time, in the making of his unique "practice" through decades, Bene was always very aware and alert of the power of structures, both in politics as well as in poetics. According to DeCerteau's definitions, practices are liquid in their unveiling and tactic in their performance. In the earlier chapters, a complex dynamics emerged from the dialectics between the notions of "structure" versus "practice". The task of this chapter, almost a paradox one might say, is to define a method to regulate the primary research streams of this PhD. Therefore, the challenge is to design a "structure" in order to formally analyze fluid phenomenon, possibly belonging in many ways in the world of "practices". This PhD study highlights exactly the critical crossroads of this paradox as it aims at academically understanding a collective, contributive, potentially co-creative process. Here, "High Design", as defined by Marzano, possibly acts as an operational catalyzer tasked with the challenge to guarantee consistency in an organic set of activities, often based on implicit or vernacular *"savoir faire",* without freezing it into an inert structure. The enquiry of the liminal space between structure and practice will be performed through a different approach, with the full awareness that earlier theoretical explorations will be but the foundation for next steps.

The specific focus of this PhD project in content terms is "design," in the context of urban futures generation, with city.people.light as the applicative field of reference. Starting from this dual moment of identification, "theoretical propositions" (to be generated as overall conclusions in Chapter 9, in perspective response to the identified three "theoretical tensions" defined in Chapter 1 through 4), will have to be analytically developed on empirical basis. They will be oriented by bibliographic sources (developed in Chapters 1 through 4) but ultimately grounded in empirical research (presented in Chapters 6, 7, 8). Within these "theoretical propositions, and throughout the analysis, further understanding of the perceived meaning of "design" and its specific function for "urban futures" as an agency governing the creation and communication of "scenarios and concepts" will be pursued. The ambition is to identify and research a discourse of "liminality" in city.people.light. This means that no major unlocking of operational meaning of what "Design" is, will be pursued. Instead, an understanding of conditions upon which "High Design" functioned in the specific city.people.light hybrid and multidisciplinary arena. The "Central Phenomenon", as specified in the paragraphs below, will be the "research-based creation and subsequent communication of urban futures scenarios and concepts (capturing visions and visualizations)", complemented by the educated assumption that such creation was enabled by/within a design process governed by High Design principles. The Central Phenomenon is characterized as a manifestation of postmodern times. Understanding this "Central Phenomenon" is a key ambition of the PhD and therefore the focal drive of all its primary research, in order to enable answering the Key Research Question. For reasons of efficiency and effectiveness in the editorial organization of this PhD study, the analysis of the Central Phenomenon will be divided in:

a) "product level" (structural moments and manifestations: city.people.light editorial product at textual and visual level) and
b) "process level" (documented practices and related moments: city.people.light workshops at managerial level).

One might identify the rationale for the above sub-division in the general dynamics governing this PhD project:

a) as "structural manifestations", specific editorial products (e.g., books and visual sketches) will be empirically identified, analyzed and described. Where, the "communication" of urban futures "scenarios and concepts" was consolidated as a validated, simplified and authoritative "proper". Hence, representing the discourse of strategy in city.people.light history and context;

b) as "documented practices" and related moments specific managerial and operational processes (e.g. decision-making and workshop management) will be empirically identified, analyzed and described. Where, the "creation" of "urban futures scenarios and concepts" was enacted as a fluid, complex and contributive "performance". Hence, representing the discourse of practice in city.people.light history and context.

This Chapter 5 was conceived on the basis of a number of theoretical, methodological and operational priorities. It will present a number of key concepts, procedures and reflections that do constitute the very methodological foundation of this PhD. Once clarified the departure points, including the two crystallized paradoxes on technology and reflexivity described below, it can be anticipated that the focus will be on scoping and specifying the context, conditions and methodological approach to address specific "research objects". In first instance, for the best editorial comfort of the reader, the Central Phenomenon and the Statement of Purpose are identified to clarify the actual object of the entire PhD study. A rationale will then be formalized, in terms of demonstrating the genesis of the three theoretical tensions, presented as conclusions of Chapter 4 above from the bibliographic review performed so far. At operational level, the secondary extant documents and the primary research data gathering approach will be presented and justified.

The methodology will follow in line with constructivist epistemic principles, leveraging the notion of *"bricolage methods"* or, as specified in the Statement of Purpose below, of mixed methods. Grounded Theory will be the *"primus inter pares"* organizing principle for the research, focusing a specific list of "research objects" (e.g., books, workshop process) generated in city.people.light programs between 2006 and 2014. Constructivist Grounded Theory will offer the necessary conditions to operate through data gathering (interviews) and secondary analysis. With the ambition to saturate the research field with acquired information and subsequently generate those theoretical propositions that might integrate the bibliographic findings so far accumulated in Chapters 1 through 4. Methodological notions will not be limited to this chapter. In this perspective, validity and validation will be managed as processes, all along the research enterprise ahead, with a number of detailed actions taken to ensure that the PhD research and with specific limiting conditions, however complex and flexible, to ensure consistency within the necessary protocols of formal acceptability for the prospect of PhD promotion.

5.1) PhD PROJECT FOUNDATION: CENTRAL PHENOMENON, STATEMENT OF PURPOSE, RESEARCH PROBLEM

The overall purpose of the first four chapters (1 through 4) was to bibliographically

contextualize theories towards defining the below specified "Central Phenomenon". Chapters 1, 2, 3, 4 introduced, validated and verified possible roots of city.people.light from the viewpoint of the bigger context where lay; philosophy of science, creative industry and future studies. Such bibliographic review provided an important opportunity to determine some clear lines of heritage. It defined a number of theoretical traditions and applied references. Where, a Central Phenomenon, as a manifestation of postmodern times, could be gradually constructed, hypothetically positioned, contextualized, reviewed and reflected upon. References included storytelling, semiotics, (participatory) action research, network theory, Design Thinking, Spatial Agency, Design Districts and more. From these bibliographic elements and a first elaboration thereof, as operated in Chapter 4, it was possible to first foreshadow (Creswell, 2013, p.135) and now formulate a definition of what the "Central Phenomenon" addressed by the present PhD study is, as justified by the critical mass of knowledge that the theoretical chapters above jointly introduced, herewith reiterated below:

"The Central Phenomenon is identified as the research-based process of creation and subsequent communication (through editorial products) of scenarios and concepts in postmodern times (with the initial claim that city.people.light is an application of the High Design approach, the latter being a specific proprietary people-focused, future oriented, design management process by Philips).

In this context it must be firstly reiterated, on the basis of Chapter 4, how High Design as a generic approach might be seen as an attempt to include postmodern practices in fundamentally modernist and positivist oriented structures and strategies. It has been analyzed in Chapter 4 how High Design managed in the early 1990's, since its conception, at capturing the vibrancy of informal knowledge networks in Design Districts. One might observe how High Design represented a postmodernist strategy to include disciplinary diversity and cultural relevance within industrial and commercial processes governed by engineering and scientific paradigms of quintessentially modernist and positivist nature with technology at their core. In such effort, High Design created a number of epistemological and operational short circuits; e.g. between social sciences and industrial design, between people focus and engineering priorities, between science and everyday practices. This resulted in the ignition into the main body of Philips of new managerial, organizational and strategic flavors and textures, of which city.people.light might be historically considered one of the early examples. However, High Design also created frictions. As a result of those frictions, it might have been perceived, especially at its inception, as an alien body in a heavily regulated system. Such perception resulted in residual tensions over time. "Residual" in their reactionary nature however peculiarly persistent in posing challenges about the nature, value and performance of High Design activities and teams. Hence, creating a dynamic, dialectic contraposition that might plastically represent DeCerteau's theories. Namely, the approach by Philips Design, being dependent on financial support by other corporate and business stakeholders, was to adopt, at times, specific elements or inflexions from the industrial context; e.g. the notion of "repeatable business success" as self-promoted benefit of the High Design approach. This might appear as "guerilla tactics" enacted by an actor, in this case Philips Design (as High Design agent) deprived of its own proper (in this case financial independence), who therefore "hijacked" vital resources, in this case conceptual models and discourses, from the existing structures within the "proper" owned by others. In order to achieve these goals, an approach was to break down the fluid flow of practice-related moments in the creative process into the five "phases" presented in Chapter 4. Of course, no one would deny the existence within any design process of "structural

moments", e.g. the consolidation of creative processes into sketches, mock up's, prototypes, publications and other forms of objectified or even reified delivery. A postmodern approach would fully acknowledge the organic interdependency between such "structural moments" and the fluidity of "practice-oriented moments" in the flow of creative processes. However, the apparent necessity to rationalize "creativity" in an industrialist semiotic sphere led to the adoption of the five distinct phases of High Design; from "Initiation" to "Evaluation" as described in Chapter 4. Perhaps one might define this original tension in High Design as the natural tension described in theory by DeCerteau (structure versus practice, strategy versus tactics, proper versus guerilla), Habermas (lifeworld), Slaugther and more scholars presented in Chapter 1 through 4, namely the tension between a *"lifeworld subject"* and a *"reified object"*.

A set of conceptual milestones were identified in qualified theoretical sources (as specifically presented in Chapter 2) offering the opportunity to refer to the corporate process phasing of High Design (as performed by Philips Design management on functional basis) into theoretically validated "modules", connecting the heart of futures research, in actionable terms. Thus enabling to "dissect" city.people.light foresight and action-oriented research elements as a specific High Design application according to a modular approach, acting as "activation membrane" among"; a) the corporate process descriptors (High Design phases); b) the theoretical references existing in bibliographic sources and c) the fluidity of constructivist analysis of processes and practices. The Central Phenomenon took place as the sequential performance of events in a given timeframe and in specific places, where the futures research qualitative constituencies might be mirrored through an operational analogy with the following steps:

a) Monitoring, namely keeping track of the context and its environment;
b) Interviewing, namely aggregating cross-referenced qualitative expert dialogs;
c) Workshop design and management, namely collectively generating in teamwork;
d) Scenario, namely translating findings into (visualized) narratives for activation.

These four modules, as coherently emerged from theory, might balance two parallel needs:

a) respect the original High Design core intent and process description, as presented in Chapter 4, as well as:

b) rationalize the postmodern context of the Central Phenomenon as part of theory-based, applicative modules.

This possible analogy of the Philips industrial design-based structuring into process steps, derived from theories, will constitute a major intersection between specific "research objects" and their epistemological context; to be leveraged in Chapter 9 as one of the reference frames for the grounded theory development and the conclusions. The background mix of generating, integrating and converging techniques, as also specifically presented in the theory, to be possibly interpreted as governing principles behind each individual step and for the overall sequencing of monitoring, interviewing, workshop and scenario, is then functional to the creation of future visions, insights and concepts, with its roots in sometimes remote, yet connected theories. Here, we actually find a triggering point of contact between bibliographic theories and professional practices, as presented in existing scientific or trade publications.

The above conceptual elaborations constitute an enabling backbone to the research challenge within this PhD, which is formulated within the following *"Statement of Purpose"* (Creswell, 2013, 135), as drafted in the prescribed form and herewith proposed as key reference:

"The purpose of this mixed-method PhD study is to understand and describe the role of "design" in the generation of "urban futures" scenarios and concepts (namely, visions and visualizations) and subsequent communication (Central Phenomenon), *with focus on specific selected "research objects" related to city.people.light programs between 2006 and 2014".*

In a synthetic fashion, the key motivation of this study lies in the exploration and illustration of the city.people.light "practice-related moments" (processes) as a specific High Design application. With output consolidated in "structural moments" or structured products, following the reference definition: *"The intent of a research problem in qualitative research is to provide a rationale or need for studying a particular issue"* (Creswell, 2013, p.131).

The "research problem" is therefore referred to understanding, rationalizing and describing a number of "design products" (structural moments) and "design processes" (practice-related moments) from an analytical viewpoint, under the postmodern epistemic paradigm, in order to explain the generation and communication of visions, scenarios and products, capturing (visually simplified) urban futures concepts. From the perspective of city.people.light content, the challenge to envision the future of cities is under the microscope and the role of design practices and Design Thinking in doing so will be probed in analytical streams within an appropriate epistemological framework. This "problem" can be then translated into the Key Research Question:

"How does a design process help to envision (preferable) futures for cities, under postmodern conditions?"

In this context, "design" should be intended as a multidisciplinary process of meaning-making and simplification through synthesis and communication, on the basis of Chapters 3 and 4:

"High Design is a human-focused, research based, design management process for repeatable business success. High Design integrates the input from socio-cultural disciplines and people research, and then makes that information and insight the starting point of every design project" (Bevolo, Gofman, Moskowitz, 2011, p.188).

In line with general bibliographic findings High Design might therefore be seen as a process of meaning-making. Within High Design multidisciplinary qualitative research input is contextualized and simplified through visual and verbal synthesis, leading to concept creation and specification, for communication and subsequent cross-fertilization purposes. The strategic articulation of High Design, integrating as a business process from futures research to PR and profiling of outcomes, was identified in the aforementioned concept of "Multipurpose Strategy", as extensively introduced in Chapter 4. Within the above formal articulation of Central Phenomenon and the research problem, the constructivist nature of the episteme of reference for this PhD is abductively implied and the related mixed nature of the qualitative methodology to be adopted for this PhD was once again so far "foreshadowed" (Creswell, 2013, p.135). This key

assumption, as supported by the bibliographic review so far, is that city.people.light is a mix of design-driven, qualitative research methods (uniquely) catalyzed through workshops with the visioning power and communication reach to help anticipate and sometimes influence preferable urban futures. In order to do this, city.people.light leverages elements of "Design Thinking", as outlined in the theoretical chapters above. High Design can be described and connected to a number of formal explanations related to its individual modules or components, yet no unified moment of theoretical description was available to justify its peculiar city.people.light "blend" mix in its specific entirety, leading to the identification of the three "Theoretical Tensions" at the conclusion of Chapter 4. Within the next paragraph such "Tensions" will be expanded in terms of their respective theoretical contexts, summarized and specified in terms of their semantic roots and implications, towards their conversion into "Sensitizing Concepts", for operationalization at a later stage, in Chapter 9.

5.2) TOWARDS SENSITIZING CONCEPTS: SUMMARIZING AND OPERATIONALIZING THE THEORETICAL TENSIONS

In the first four chapters (1 through 4) theoretical considerations and an applicative description provided the general context of city.people.light as a design method to generate urban futures from various historical, philosophical and epistemological points of view. As anticipated hypothesis to probe by empirical analysis, "design" as a multidisciplinary process might offer the necessary means of visual communication and conceptual simplification to both anticipate the future (foresight) and influence (action research) what will come next (self-fulfilling prophecy). This is in continuity with the original intent of High Design: to mediate between scientific/engineering structure and creative/socio-culturally-attuned practice built on futures projections. As envisioned by Castells, a concrete risk is there; to just end up generating *"inert packages"* where the future is vulgarized into schematic business opportunities or pedantic translations of technology roadmaps. A vision by Slaughter praised the possibilities by "design" to generate *"epistemological cracks"* within the accepted litanies that justify the powers that be. Likewise, the bibliographic review, although not being a "design enterprise" in the classic sense, reflexively generated three "cracks", namely the three theoretical tensions at the end of Chapter 4:

- the tension between (postmodern) humanities vs. (formal) scientific discourse;
- the tension between collective participation vs. individual intuition;
- the tension between social sciences vs. (urban) design.

The existence of bibliography-based tensions should be interpreted as a resource to this PhD study. It will enable a focus of its conclusions on specific topics and areas where theory was not self-sufficient with a "purely empirical" grounded theory approach, based on primary research exclusively. Their epistemological viability can be foreshadowed from a Grounded Theory perspective: "*The sociologist may begin the research with a partial framework of "local" concepts….*" (Glaser, Strauss, 1967 – 1999, p.45). Theoretical tensions will therefore need to be leveraged by converting them into key "local concepts", to be described and distilled starting from the challenges identified so far. Such "local concepts" will be considered within this PhD study as equivalent to "Sensitizing Concepts" derived from theory, to be leveraged for the purpose of focusing Grounded Theory development. In essence, theoretical propositions will be generated right there where theory proved insufficient. The purpose of this paragraph is to firstly

take a step back to earlier theory, in order to summarize and contextualize the nature of these tensions as a due intermediate step and to enable their operationalization at a later stage. From this advanced review of the "thick base" of theories substantiating Chapters 1 through 4 through the specification of these three theoretical tensions to stand for the actual theoretical areas for further reflection, the paragraph will shift to two additional "paradoxes", representing the theoretical challenge to define the role of technology and the methodological challenge to manage the double role of the PhD researcher, who is also the actual research director for the program delivering the "Central Phenomenon" and in such capacity deeply involved with the "research objects" that will specified at later stage. The epistemological vision can be developed for the entire PhD project. The concept of "Liminality" will be specified and defined in "5.3) Epistemological Vision" below.

5.2.1) From Theoretical Tensions to Sensitizing Concepts: Methodological Viability

The three theoretical tensions will constitute the backbone of the Sensitizing Concepts, on which grounded theory will be generated in Chapter 9 as conclusions. Although the inclusion of theoretically pre-defined materials represents a substantial deviation from the most doctrinal prescriptions of Grounded Theory, such a step was at the same time not excluded by the very creators of this approach: *"From a grounded theory perspective, extant concepts must earn their way into the analysis…"* (Glaser, 1978; Glaser, Strauss, 1967, quoted in: Charmaz, 2014, 112, footnote 2). It might be suggested that these three tensions fully complied with such reference as they were systematically reviewed. Their theoretical soundness, and at the same time their conceptual representation of gaps in bibliographic sources, substantiate the criteria by which these tensions *"earned their way"* into the research. Furthermore, as this specific methodological design choice requires a next step to be operationalized, it might be correct to resort to: *"…Herbert Blumer's (1969) notion… A sensitizing concept is a broad term without definitive characteristics; it sparks your thinking about a topic (Van den Hoonard, 1997). Sensitizing concepts give researchers initial but tentative ideas to pursue and questions to raise about their topics. Grounded theorists use sensitizing concepts as tentative tools for developing their ideas about processes they define in their data…"* (Charmaz, 2014, p.30). The selection of a mixed method within the constructivist episteme guarantees more flexibility than an "orthodox" Grounded Theory design in its 1960's framework. It seems a positive fact that there is the possibility to verify the methodological appropriateness of bringing this choice into the research design, as based on a direct quote. The conversion of "Theoretical Tensions" into "Sensitizing Concepts" is therefore the required step to preserve the identified assets; by operationalizing them.

In the next paragraphs of this chapter, and in the general introduction to the empirical section, all necessary further clarification on empirical analysis and formats will be provided. Such operational conversion will be enacted by "semantic mirroring", namely keeping the tensions in their present form, in order to seek the opportunity to address their respective "theoretical cracks" as directly and effectively as possible, straight from the source. In order to do so, the Sensitizing Concepts, will be cross-referenced, engaged and activated with the outcome of primary data analysis. The latter being aggregated in the form of key empirical constructs, to seek interdependencies, complementarities and areas of potential development. For the time being, suffice to state that Sensitizing Concepts will functionally constitute the field where opportunities

for the new "grounded theoretical" propositions will emerge in Chapter 9, as part of the Conclusions. Additionally, as enucleated in the introduction of this chapter a set of two additional paradoxes, one theoretical and one based on the practical context and the personal experience in the field, are complementary to this first set of theoretical tensions; the role of technology (theoretical paradox) and the role of the researcher in the context of the analyzed city.people.light practices (methodological paradox).

5.2.2) sensitizing concept one:

(postmodern) humanities *versus* (formal) scientific discourse

Polarity One: Humanities
Polarity Two: Positivist Sciences
Median: Action Research

In Chapters 1 and 2 a journey in history was performed. This went from literary masterpieces like More's *"Utopia"* or Defoe's *"Robinson Crusoe"* to scientific references by the likes of Bell and Slaughter, to management literature. A point of intersection between these various worlds was identified in Marx. His work presents the notion of *"Becomingness"* in combination with a call for action in the form of the Manifesto. The concept of *"Becomingness"* represents a fragile point of balance where scientific ambition meets the drive to achieve socio-political change, and they together are enabled by the adoption of empirical data. On such theoretical corpus, combining narrative and proto-scientific literature, including the likes of De Condorcet and Bellamy around WWII and immediately thereafter the first generations of futures scholars and technicians developed their systemic approaches in the realm that DeCerteau describes as "strategy". Their modalities mimicked, as much as possible, the positivist paradigm. Furthermore, the technical requirements of the military-industrial governmental agencies (key beneficiaries of their input) were referenced. On the other hand, opposite currents with radical political visions were developing. The participatory approach of Action Research represented an ideal 1960's counterpart to the danger of a "white apron/white collar" technocratic drift in futures research. Here, the "workshop approach" by Robert Jungk offered an important touchpoint towards an actionable notion of participatory futures. This left major tensions in the connections between speculative humanities versus formally based scientific discourses of future studies. These reflections might likely offer developmental space for further analysis beyond existing bibliography, possibly at theoretical level, with tensions between humanities versus positivistic science that do remain key open fields for further enquiry. A similar situation was identified and partially addressed in Chapter 3 between the formal field of social sciences and cultural analysis versus that of creative industry and Design Thinking.

5.2.3) sensitizing concept two:

collective participation *versus* individual intuition

Polarity One: Participatory Research
Polarity Two: Genius Forecasting
Median: (Design Districts) Networks

In Chapter 4 a possible link between the futures domain and the design domain was explored analyzing the "designer moment", thanks to the identification of concepts like

that of "Trained Judgment" (Van Berkel). The latter reconnects to the problematic option of "genius forecasting", where foresight activities essentially become an exercise of charisma and individualism aimed at generating self-fulfilling prophecies. Additionally, "Trained Judgment" is a contiguous concept with the aforementioned notion of "*abduction*" (Fischer); as encountered in research theory. As an example of organic, participatory, contributive practice of multidisciplinary diffused design the Italian "Design Districts" were introduced as studied by Verganti, and clarified in the light of network theory by Castells. Design Districts offer a potential conduit of continuity between humanities, sciences and enterprise by means of informal and organic networks. Design Districts might therefore be described as socio-cultural loose circles or even "communities of practices" in the sense of practice assigned by DeCerteau. However actionable, this model encounters a challenge in its scalability and transferability to other business contexts; corporate enterprise requires "strategies" and "structures" beyond plain serendipity.

Shifting from this theoretical summary to the methodological directions and implications within the context of this study High Design is a key concept because it is the generic kernel of the city.people.light approach; its methodological archetype. While High Design, and therefore city.people.light as its particular application, might be bibliographically described as a peculiar version of "action research" its separated constituencies (qualitative expert interviews, the use of analytical matrix tools, as imported from the consulting contribution of FutureConceptLab, Milan, design workshops) would not fit in related taxonomies and bibliographic genealogies. Therefore, the need for deeper analysis of city.people.light components appears to be the direct consequence of a deficiency in existing formal scientific literature where "envisioning power" can be variably ascribed to "individual intuition" (e.g. "genius" forecasting or "Trained Judgment" by architects) or "collective participation" (e.g. Action Research or co-creative workshops). It appears relevant to explore this conceptual tension further, to understand where city.people.light really stands in terms of its equity and relative position in this discourse.

5.2.4) sensitizing concept three:

social sciences *versus* (urban) design

Polarity One: Social Sciences
Polarity Two: Design
Median: Image and Autopoiesis

In Chapter 3 a bibliographic analysis was provided to position "design" as a cultural practice with specific meaning-making capability. The economic context of design was sketched with references to the works by Zukin on markets and places, to the writings of Sudjic and Knox on the commercial value of design, with political implications. Such political dimension of design was taken into due consideration and further developed with the purpose to specifically probe if and how design might be stretched from industrial activity into societal visioning. The position of the "designer" was semantically clarified in relative terms, as opposite to that of the artist and the scientist, with particular focus on the role of the designer versus the role of the engineer. A number of important touchpoints were also identified between these design "discourses" and urban strategies or architectural practices. In particular, this was done with an eye for more progressive and experimental "grassroots" notions of city design. Likewise, a number of minor

triggers were defined, where "design" was described as a potential intrinsic force of social renewal on the basis of self-generative quality, namely "autopoiesis". Connections between design visions and practices were mentioned, among other sources, in the bibliography references to Flusser and Fry. Fry in particular provided a very deep philosophical analysis of the context and the essence of "design" and Awan, Till, Schneider provided the innovative notion of "spatial agency". However, leaving space to further elaborations, both at descriptive as well as possibly at theoretical levels. On the other hand, social sciences have been reflecting and engaging with the visual dimension of societies and cultures, from visual sociology to visual anthropology. The adoption of sensorial deliverable formats, mostly visual, is part of the quest for a sociology that goes beyond the imitation of natural sciences and a natural extension of the postmodern *"language turn".* In this respect, the relevance of "the" image and visual is an argument that is not alien to contemporary postmodern sociologies. Hence, its prominence in terms of futures research appears to be coherent and consistent with challenges and experiments in social sciences. In conclusion, the combined relevance of the "image and autopoiesis", substantiated by the power of the visual ("what" design generates) with self-generative possibilities ("how" design self generates), was identified as a relevant liminal space offering development opportunities across research (Gergen, 2014) and "design. A systemic theoretical foundation for an operational and structural connection between "futures research" as a branch of social sciences and "design" as a branch of creative industries was however not identified. This appears as a fertile ground for further analysis, to be operated ahead.

5.2.5) Theoretical Paradox: Technology Focus versus People Focus

Beyond theoretical debate this paradox might not seem particularly surprising because, as reported in Chapters 3 and 4 and summarized earlier in this chapter, High Design as a vision on creative processes and as a corporate asset was born exactly to counterbalance the otherwise eminently scientific and technical nature of the Philips culture. Highlighting High Tech as a dominant driver would, therefore not honor the original purpose of High Design itself: to put people back at the center, re-balancing the preponderance of high tech in its corporate context. Furthermore, it must be anticipated how, through the decades in city.people.light programs from 1996 onwards, a relevant quantity of future concepts was generated at times when existing applied technologies would not even enable the prototyping thereof due to mere technical limitations. If further verified within this PhD this information alone might suffice to propose that technology roadmaps and the technological discourse, however relevant, have not been historically "in the lead" of city.people.light programs and processes. On the contrary, since its inception, city.people.light might have reversed High Tech into an ancillary position or at least an egalitarian one when compared to people focus. Additionally, a first reason for not positioning technology as a key High Design driver lies externally in the educated interpretation that the PhD researcher himself formed about technology (from a cultural perspective). At this moment in history one might find multiple and strong evidence in media, culture and society, at all levels, of a predominant tech-driven paradigm. One so powerful to be embedded in what Castells defined, in Chapter 4, the *"automaton"* and therefore one not to be negotiable and, to some extent, not even visible anymore in its real nature of cultural product: *"According to Bell's schema, if the first modernity follows a logic of technology and the second a logic of culture seen in contradiction from technology, then the global information order operates from the indifference of a technological culture"* (Lash, 1999, p.13). Complying with the above *zeitgeist* might be the easiest way to efficiently wrap up this specific point. After all, it is in the nature of the

"automaton" to generate discourses to be implicitly accepted and rapidly digested as self-evident in their ideological articulation. However, such choice would be highly ineffective in terms of critically stretching this analysis by addressing the nature and dynamics of power structures; e.g. the ones hiding behind the mask of technological optimism. It was instead chosen to present, herewith, establish and follow a whole different assumption in framing technology. Namely, it is proposed to position technology and its artifacts as one of the various semiotic agents that animate the contemporary discourses. Therefore, subjected to the same rules of production, distribution and fruition of all cultural discourses: *"…technology, death and desires themselves become signals, become bits, become units of information..."* (Lash, 1999, p.11). A prevalent focus on people in terms of societal and cultural drivers seems, therefore, in line with this "ideological" choice at the origin of the approach, permeating the entire design practice where city.people.light finds its roots. Accordingly, in this PhD technology will therefore be primarily identified as one of the various and diverse engines of development pervasively present and, of course, sometimes dictating trends. However, not as "the one" key cultural driver determining a positivist epistemological focus.

5.2.6) Methodological Paradox: Researcher Role versus Insider Role

Less related to process management and more based on personal circumstances, a different paradox might emerge from the very professional nature of the function performed by the researcher behind this PhD study. Namely, an "insider" function, with objectives and obligation not involving requirements of academic research. This would not be acceptable if a positivist position was taken. A position where the researcher and the "objects" of research require separation and detachment. The city.people.light program and its specific field of enquiry represent a professional area of activity for the PhD researcher since 1999, when he formally started to operate in the sector of trend forecasting. Such professional status matured in the decade before 1999 through privately cultivating an interest and studying trade authors and consulting ideas in own leisure time. In the period from 2006 to 2015 the specific domain of "urban futures" attracted the main vocational and academic interests of the PhD researcher. In view of the fact that it embodied the balance point of both its professional consulting practice as well as the object of a great portion of his own applied sciences lecturing and researching besides this PhD. It must be clarified that despite being, indeed, instrumental as one of the content and research leaders in the process both in the global city.people.light study in 2006/2007 as well in its European counterpart *"Create the Livable City"* in 2011 / 2014; the PhD researcher was never an executive member of the decision-making group controlling managerial budgets (Philips Lighting BV for invoicing purposes, Philips Lighting Solutions Outdoor EMEA and Europe for managerial purposes). In this context, in 2011/2014, he acted as external consultant contracted on the basis of enterprise-to-enterprise contract via his own consulting company. In 2006/2007 he acted in the capacity of Director with a global service unit with budget dependence (and therefore in an unbalanced power relationship) with customers such as; Philips Lighting (Philips Design, being part of another entity within Philips: Philips International BV). Whereas crucial creative direction and management decisions were taken or influenced by the researcher in such an "insider" capacity one might speak more of "moral authority / moral suasion" based on specific knowledge, competence or networking skills than of actual corporate executive power in terms of commanding and controlling. It seems appropriate to specify the overall complexity of this multiple role where the author is *"both self and the other"* (Davies, 1999, 183) in his direct experience of the social processes, power structures and cultural symbols within the field: *"In other*

words, simply by being of the country/culture/group… one is not automatically guaranteed infinite and interminable self-knowledge" (Panourgia, 1995, 10-11, quoted in: Davies, 1999, p.183). Such description captures the state of insecurity implicit in the role of consulting principal, depending on budgetary and executive decisions signed off by others. Yet, the PhD researcher was in the lead for specific competence areas like futures research or book authorship. This challenging dichotomy seems to establish the perfect field for the adoption of "ethnographic autobiography" as the method to generate reflexive considerations. Since the 1970's *"…the open admission of the involvement of ethnographers with the subjects of their research came to be welcomed as an opportunity to liberate the field from a positivist commitment to value-free scientism"* (Davies, 1999, p.178). This transparency is required at all times by the nature of the two roles at hand. One role associated with the custodian and authority figure of applied activities in "real life", and the other as the "scientific researcher", probing the formal validity and theoretical value of such activities. In conclusion, a rigorous reflexive approach is required, given the double role of the research agent behind this study (both qualitative researcher in this scientific setting as well as principal/director research in the context of the actual processes under examination). Such reflexivity will guarantee both the full disclosure as well as the selective inclusion of relevant personal insights. Configuring yet another step, building up towards the definition of an epistemological vision beyond positivism with the collateral benefit of anecdotal contributions and memoire recall to "thick descriptions", as already introduced in Chapter 4. One might say that this PhD is the equivalent of the cinematic product of a director (the PhD researcher), who at the same time shifts position in front of the camera, to also play as co-protagonist actor (the "insider" consultant) in the narrative that he is shooting from an aerial view. Such double role will surely offer challenges at all levels; from intellectual independence to academic authority. However, it also offers a unique synthesis between generating and monitoring, between leading and learning, between reframing the present and reflecting on the epistemological meaning of the future.

5.3) EPISTEMOLOGICAL VISION: FROM ABDUCTION TO CONSTRUCTIVISM, A SPACE OF LIMINALITY

Resembling cinematographic masterpieces like F. Truffaut's *"Day for Night"* (1973) or F. Fellini's "8 ½" (1963) (both being artworks where the "movie about movie making" narrative format was employed) this PhD project will feature for its primary empirical component a qualitative study aimed at achieving deep understanding of an applied qualitative research approach, based on qualitative futures research, in the creative industry. It has been articulated, in the four theoretical chapters above, how the challenges to study the future stretch from the low possibility of endurance or falsifiability to open participation. A first characteristic of this study is that it pertains futures research and an approach to innovation that has the ambition to provide simplified/simple access to visions of change, whilst addressing a field that is typically "into liminality", as foreshadowed in the presentation of theoretical tensions and Sensitizing Concepts above: *"Liminality refers to moments or periods of transition during which the normal limits to thought, self-understanding and behavior are relaxed, opening the way to novelty and imagination, construction and destruction. For this reason, the concept of liminality has the potential to push social and political theory in new directions… liminality must be posited as a central concept in the social sciences, in line with our notions of "structure" and practice"* (Thomassen, 2014, 1). Besides being a reference adopted in identifying the space of generative opportunity within theoretical tensions

(Chapter 4), liminality as a notion in itself is an intrinsic condition of futures research, to be specified as the "space between" structure and practice or as an intermediate dynamic condition between structure and practice. With "liminality" being clarified, after foreshadowing it in Chapter 4, the stage will be set for the establishment of priorities and the making of choices:

c) firstly, the notion of "*Abduction*" will be re-iterated and discussed as central. Not only in the futures research formal sense, but also in terms of its possibilities to steer towards an overall methodology for the entire PhD study;
d) secondly, it will be presented and justified how the epistemic reference was identified in Constructivism. The constructivist approach will be introduced in its connection to future studies and as the most effective and efficient *trait d'union* across the diverse priorities that have emerged so far; including the theoretical elements provided in the chapters above.

Within this context of "liminality" it might appear unlikely, if not impossible, to leverage the conventional features of positivist thinking and conventional scientific research as are deduction and induction. As defined in Chapters 1 through 4 alternatively "*Abduction*" is a modality of inference for the study of an "object" that does not yet exist and is not dictated by natural laws, as the future per definition is, with the critical realism-referred adoption of "posits" and "surrogate knowledge" as necessary operational enablers, in a conceptual mechanism recalling the *"suspension of disbelief"* in literature. It must also be noted how a rich theoretical background examination, as performed in the first four chapters above, is a fertile nurturing of the abductive processes behind both futures thinking and Design Thinking namely; *"In depth familiarity with a broad range of theories is… critical for* abduction*, both in the acts of everyday theorizing and especially in more formal acts of theory construction. Any act that redescribes the world or presents a new narrative within it is a proto-theoretical* abduction*"* (Tavori, Timmermans, 2014, p.42). It is editorially relevant to specify that the final choice of opting for Grounded Theory and its methodological translation in the empirical chapters ahead, as it will be further analyzed, emerged through an iterative process, from theory (seeking scholars and authors to address the tensions) to intuition back to formalization. In this context the analysis of literature was experienced as a journey across existing theoretical or methodological concepts towards innovative combinatory opportunities through abductive processes and dynamics.

At a higher/wider level of theoretical abstraction *abduction* offers an ideal proximity with one specific episteme; that of "Constructivism". Also, Action Research and other forms of participatory field practice seemingly find their best epistemological fit within the constructivist view of social sciences. As introduced for the concept of *"abduction"* it is possible to present the epistemological connection between futures research/studies (the fields under investigation) and the selected epistemological vision; "constructivism". This can be identified in the very definition of "what" a Futurist is, as follows:

"A futurist is a person who pieces together knowledge as a set of cognitive patterns which represents a pattern of the future as a process of "sense making". Futurists live in a world of emergent construction that changes as data emerges from the different tools, techniques and approaches to elicitation (Weinstein & Weinstein, 1991). They often deploy triangulation of methodologies in order to capture and understand the world around them. Futurists never present objectivity but a range of alternatives of subjectivity. The research they are involved in presumes interpretation which Schwandt

(1994) labels constructivist interpretation. This is an ontology that is predominantly local and specific in which the creation of knowledge is grounded in practice. This epistemology views knowledge in a subjective and transactional manner as merely suggesting directions along which to look, rather than providing descriptions of what to see…" (Yeoman, Potsma, Oskam, McMahon-Beattie, Findlay, in: Potsma, Yeoman, Oskam, 2013, p.60).

It is on the basis of this comprehensive reference by Potsma and others that it can be proposed and concluded that the methodology supporting this PhD study will be oriented towards being governed by a constructivist episteme, as alternative to positivist ways to conventionally conceive, frame and perform research with abductive practices as operational features.

5.3.1) Methodological Strategy: Grounded Theory as overarching approach

Given the hybrid foresight nature of city.people.light itself, combining social research and design-led innovation, it may come as no surprise that a mixed method, as introduced above in the Statement of Purpose, was consistently and coherently defined in order to perform its analysis. This led to a formally defined "bricolage method" embodying a precisely tailor-made approach to the specific problems at hand in this research: *"A strategy of inquiry describes the skills, assumptions, enactments and material practices that researchers-as-methodological-bricoleurs use when they move from a paradigm and a research design to the collection of empirical materials…"* (Denzin, Lincoln, 2013, 49). The notion of *"bricolage"* itself is no stranger to the postmodern repertoire as outlined in the bibliographic review so far. In the line of work by DeCerteau, particularly his earlier analysis of tactics and of practices, "bricolage" is defined with a strong focus on the individual ability to combine different elements from various portfolios in a new combinatory mix (quoted in: Hooker, 2014, pp.104 – 105). With this reference an ideal full circle can be closed between the earlier theoretical framework and the subsequent methodological strategies below, with due epistemological alignment. As anticipated above, in full continuity, the constructivist episteme was abductively identified as the most appropriate for this PhD study, given its continuity with *"abduction"* as an epistemological principle. This choice was made in order to maintain consistency and continuity at philosophical, ideological and operational levels with the theoretical findings. In line with the Statement of Purpose the question addressed in this next paragraph to investigate the Central Phenomenon is; *what is the optimal approach to investigate city.people.light, with key focus on its design processes?* Within the flexible bricolage method mix one specific approach will constitute the prevalent point of gravity for the entire study. The bibliographic reviews of the first chapters and the preliminary analysis of this chapter so far has already highlighted a number of topics and challenges for further development: mutual relationships across humanities and science, across sociology and design, and across individual and collective creativity.

Firstly, the selected approach, Constructivist Grounded Theory, will be reviewed in its historical, epistemological, operational implications, to be assessed in its specificity and its theoretical context in particular. Secondly, the approach will be operationalized with the ambition to combine the following features that appear relevant to the PhD as outlined so far:

a) the peculiar opportunity to generate descriptive analysis. At best "thick descriptions", reporting sequences of events as processes; as based on the

multiple roles of the researcher; with

b) the aforementioned pervasive focus on *abduction*. Both as a research topic to be investigated as well as a preferred operational strategy with theoretical foundations; with

c) the opportunity to address aforementioned three theoretical tensions as summarized in an earlier paragraph, possibly generating theoretical propositions, taking also into account the two aforementioned paradoxes.

The resulting combination of the above features and considerations points towards one methodological option as the best approach; to be probed and verified. In relationship to these three points in particular, and particularly to the third and latter one, the generative opportunities in Grounded Theory as presented below might offer a seamless, fluid and dynamic way of working, naturally fitting with the "practices" being studied. This will appear validated by the specific conceptual hierarchies and the operational praxis of peculiar nature employed by Grounded Theory developed through the last 50 years.

5.3.2) Background, possibilities and benefits of Grounded Theory

Historically, Grounded Theory was born as a reaction to Post-WW II positivistic, quantitative reductionism, with the aim to qualitatively re-establish the specific point of uniqueness and strength of sociology, and sociologists: *"…generating sociological theory. Description, ethnography, fact-finding, verification (call them what you will) are all done well by professionals in other fields and by layman in various investigatory agencies. But these people cannot generate sociological theory from their work. Only sociologists are trained to want it, to look for it, and to generate it"* (Glaser, Strauss, 1967-1999, 6 – 7). This is therefore an alternative approach versus what positivist episteme dictates, however a somehow comparable one. At biographic level it must be noted how Glaser actually formed his personal base in the positivist tradition of Columbia University. Whilst Strauss followed the otherwise attuned Chicago school, where *"pragmatism and field research"* were paramount: *"Pragmatism informed symbolic interactionism, a theoretical perspective that assumes society, reality and self are constructed through interaction and thus rely on language and communication"* (Charmaz, 2006, pp.8 – 9). The duality between the backgrounds of the two authors was to be reflected in subsequent evolutions of the approach. With Strauss joining forces with Corbin in 1990 to release their *"Basics of Qualitative Research"*, where the approach became prescriptive and therefore as mechanically rigid as any positivist method. (Charmaz, 2006, p.11). Such danger of dogmatism is a true paradox, in this case, as a method that was generated to break free from the constraints of positivism turned into a new scientific fetish, only of a different nature. In this context and one step ahead; *"Constructivist Grounded Theory adopts the methodological strategies of Glaser and Strauss's classic statement but integrates relativity and reflexivity throughout the research process"* (Denzin, Lincoln, 2013, p.303). With ideal references in the likes of Kuhn (Gergen, Gergen, 2003 – 2008, p.7), Ludwig Wittgenstein (ibidem, 18) and Harold Garfinkel (ibidem, 11) Constructivism, all the more, radically departs from the positivist paradigm of natural sciences embracing the fact that, as examined in the earlier chapters: *"When researchers select a phenomenon for study, they are giving voice to the cultural traditions of which they are part… What we call "measures of the phenomenon" are not, then, reflections of an independent world",* rejecting the *"predict and control"* modality of natural sciences as applicable to the realm of sociology

(Gergen, 1999 – 2009, pp.58 – 59 - 60). This notion of "research" appears perfectly in line with the reflexive necessities articulated in the earlier paragraphs above as it enables the emergence of the researcher as an "involved subject" in the process. Additionally, expanding further, in continuity with the earlier analysis of futures research in relationship to Marxism it can be added that; *"Reminiscent of Marx's view of history, the constructivist approach treats research as a construction but acknowledges that it occurs under specific conditions"* (Chamaz, 2014, p.13). This is an additional touchpoint in terms of continuity and coherence between the domain of future studies and the methodology to study city.people.light as a "research object". The "specific conditions" implied in this last quote from Chamaz will be the object of the next paragraph. Where, the actual specifications and requirements of Grounded Theory for this project will be presented and probed.

Within Grounded Theory, in line with Melucci's earlier reflections on the *"communication turn"*, research outcome is a narrative moment of structural nature that embodies originally developed theory (developed through the research process), grounded in research data and findings with bibliographic references eventually supporting the new theory in their capacity of external sources (Creswell, 2013, p.229): *"A key idea is that this theory development does not come "off the shelf" but rather is generated or "grounded" in data from participants who have experienced the process"* (Strauss, Corbin, 1998, quoted in: Creswell, 2013, p.83). Key characteristics within this approach appear particularly fitting with this PhD study of city.people.light (Creswell, 2013, p.85, also as a source for all points below unless otherwise specified):

a) a focus on a process that has a specific number of "phases" unfolding over time, *"…that may have identifiable markers with beginnings and endings, and benchmarks in between"* (Chamaz, 2014, p.17). This offers an ideal match with both the theoretical extraction of "monitoring/interviewing/workshop/scenario" mirroring High Design analysis phase and –in general- the project structure of design work;
b) interviewing plays a key role in data collection, however also the adoption of "extant documents" (those unobtrusively available, apparently objective sources on an "as is" basis, to be culturally interpreted) is accepted (Chamaz, 2006, p.48). Key is to achieve *"saturation"* in data collection (Creswell, 2013, p.89). This offers the opportunity to truly leverage the critical mass of available "products" (e.g., books, including text, sketches, photos) and extant documentation;
c) *"data analysis can also… be based on developing a theory by piecing together implicit meanings about a category"* (Chamaz, 2006, quoted in: Creswell, 2013, p.85). This meets the ambition to close the three "theoretical tensions", as identified above, from sociology to design, from humanities to science and from individual to collective generativity.

Additionally, flexibility and scalability of the approach meet the key requirement of any "*bricolage method*" that is: the possibility to complementarily work with *"…other approaches to qualitative data analysis, rather than stand in opposition to them"* (Chamaz, 2014, p.16). In particular, constructivist grounded theory expands the field of research beyond plain interviews as data gathering: *"…documents might be all the data…"* Here, data collection methods adapt *"…flowing from the research questions…"* embracing fully *"methodological eclecticism"* (Chamaz, 2014, p.27) as an asset to understand reality, in order to possibly "ground" in such understanding contingent

theories. Furthermore, the accent lies on the "iterative" nature of the research process in time, a process that is based on accumulation and not on deduction; *"Theoretical sampling is the process of data collection for generating theory whereby the analyst jointly collects, codes and analyzes his data and decides what data to collect next and where to find them in order to develop his theory as it emerges…"* (Glaser, Strauss, 1967 – 1999, p.45). The last points must be reiterated in terms of specifying that the "local concepts", described in the very same point of Glaser and Strauss' seminal book, should not be considered as any preconceived theoretical framework. On the contrary, within this PhD, their equivalent "Sensitizing Concepts" are points of departure to explore the possibilities of creating new theoretical propositions.

From an operational viewpoint it is the theoretical tensions from bibliography presented in chapters 1 through 4 that should be therefore interpreted as leading to the "Sensitizing Concepts" as presented in this Chapter 5. In the case of city.people.light, the PhD researcher is confronted with a major archive of available secondary data. In the form of the publications, archives and observations from the past, as listed in an above paragraph. The connecting factor between theories and secondary research assets, to be viewed as complementary realms of information, is the primary data gathering process. In this primary research moment, bibliography, preliminary data and abductive inferences based on existing (implicit) knowledge support the initiation and execution of direct dialogs with selected stakeholders involved with city.people.light programs over the years. Ultimately, primary research activities were designed, planned and executed with the key purpose to perform iterative exploration as "open" as possible in the very heart of process, products, strategies, effects and conditions related to the "Central Phenomenon" to be analyzed by means of "coding".

5.3.3) Operational Procedures within Grounded Theory generation: Coding

In order to provide a first generic reference on empirical analysis procedures a Grounded Theory project might be described as a sequence of classificatory actions partitioning data in diverse conceptual clusters through the process of "coding": *"Coding means naming segments of data with a label that simultaneously categorizes, summarizes and accounts for each piece of data… A code sets up a relationship with your data, and your respondent"* (Chamaz, 2014, p.111). Down to a higher degree of granularity, a code is defined as: *"…a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data"* (Saldana, 2013, p.3). In a Grounded Theory process it appears crucial to start with coding as early as possible, so that a focus might emerge, possibly leading towards early definitions of categories (Chamaz, 2014, p.112). The descriptions of the specific procedures for coding and theming to be adopted within this PhD exceed the scope and purpose of this chapter. They will constitute the object of the introduction to the next section, comprising the empirical research data processing, subdivided in three distinctive domains: history and context of city.people.light (Chapter 6), products (Chapter 7) and process (Chapter 8). Further detailed explanation of coding procedures and detailed requirements adopted for this PhD study will follow in the general introduction to the empirical Section III below, as part of the activation and specification of the methodologies presented in this chapter.

5.3.4) Operational Procedures within Grounded Theory generation: Memoing

Additionally, beyond the coding of primary data the procedure of "memoing" is part of the

methodological portfolio of Grounded Theory. Memo's are described by all authors defining Grounded Theory (Creswell, 2013; Charmaz, 2014) as a crucial asset to research. By capturing early insights, hypotheses and abductive inferences as they emerge in the research process researchers enjoy the benefit of constantly self-monitoring and reflexively re-directing the research according to early findings however solely sketched. An indirect description of this approach provides the following overview: *"A… type of narrative material would compile the evidence dealing with particular… ideas that might have caught your attention during or just after data collection. The compilations would help… to sort… evidence more methodically to determine the strength of the empirical support for these… ideas. This entire activity might resemble the memo writing promoted by researchers practicing Grounded Theory* (Yin, 2014, p.126). In more concrete terms, the operational: *"Analytic memos are somewhat comparable to researcher journal entries or blogs…"* (Saldana, 2014, p.41). In the peculiar case of city.people.light "memoing", however assumes an additional and different meaning; while the PhD researcher might use indeed memos or not according to the flexibilities described as intrinsic to Grounded Theory (Chamaz, 2014, p.12). Throughout the process it will be possible to access selected records and older notebooks with the "memoed" documentation of how the PhD researcher, in that "insider" capacity as director and consulting principal for the urban futures part of *"Create the Livable City"* 2011–2014, elaborated data, thoughts and ideas towards the key milestones in the processes both at macro level (High Design and program), as well as at micro level (single events or publications).

5.4) RESEARCH OBJECTS: PRODUCTS (STRUCTURAL MOMENTS) AND PROCESS (PRACTICE MOMENTS)

5.4.1) Selection Rationale

A complete description of the selected "research objects" within this PhD is necessary. To specify the actual scope, extension and limitations of the PhD project, such description will specify precise city.people.light products and processes. It must be firstly noted how "research objects" will exclusively cover the period 2006–2014, whereas extant documents and sources might also include sources concerning to an earlier period (e.g., 1995–2005, specifically the 1996 global program and the 1997 book) or later period (e.g., 2015 Paris *"Create the Livable City"* workshop). The methodological rationale for this choice is to guarantee formal integrity and analytical continuity of the PhD design across all of its components. In this respect, and in particular, a key element in the PhD architecture is the second paradox above, entailing reflexivity, as related to the double-role played by the PhD researcher. Such PhD researcher, always in his parallel consulting and directional capacity, was also involved in the actual direction of city.people.light research and authorship of its main editorial products in the period 2005–2015. It would be impossible to guarantee the consistency of the PhD if there was no consistency between the selected research objects and this intrinsic quality. From this perspective, one may objectively appreciate the potential clustering below based on the roles of the PhD researcher:

1996 global edition of city.people.light:

a) research direction:
   Francesco Morace and Josephine Green, FutureConceptLab, Milan
b) workshop direction:

Menno Dieperink, Philips Design, Eindhoven

c) 1997 book authorship: VV.AA. - various authors (unspecified);

2006 global edition of city.people.light:

d) research direction: Marco Bevolo, Philips Design, Eindhoven
e) workshop direction: Marco Bevolo, Philips Design, Eindhoven
f) 2007 book authorship: Bevolo, M. (Ed.), Pereira, F., Venzke M.

2011 – 2013 European edition of city.people.light (*"Create the Livable City"*):

g) research direction: Marco Bevolo, Marco Bevolo Consulting, Eindhoven
h) workshop direction: Tapio Rosenius, Lighting Design Collective, Madrid
i) 2014 book authorship: Bevolo M., Rosenius, T.

The same description might be presented for the ancillary 2012 2013 Polish national "Architects of Light" program, from where one specific workshop output (Wroclaw, Spring 2013) was extracted and published within the 2014 *"Create the Livable City"* book:

2012 – 2013 Polish edition of "Architects of Light" (national program):

j) research direction: Marco Bevolo, Marco Bevolo Consulting, Eindhoven (with direct involvement limited to: Sierpc, Lodz, Wroclaw events)
k) workshop direction: Michal Kaczmarzyk, Firma Qbiq, Nysa
l) book: none, with exception of Wroclaw workshop published in 2014 EU book above specified

From the above table summary it is possible to identify, as congruent and consistent, the 2006 and 2011 2013 editions of city.people.light, including the Polish ancillary "sister program". Here, the PhD researcher will adopt a reflexive posture and strategy, as he fulfilled both research leadership and authorship roles. These specific programs do offer the same level of individual insight, personal involvement and reflexive urgency both at the level of their process history as well as when it comes to the consolidation of research by means of editorial choices. Concerning the 1996 city.people.light program global edition and its related 1997 book, they will also be investigated, together with more ancillary and follow up projects, in terms of extracting the historical and contextual background to the actual "research objects", in order to clarify their genesis, their operational circumstances and their organizational setting.

The rationale above is a pivotal point in this research project, with respect to standard methodological guidelines, where the (double) role of the PhD researcher plays a function that might be considered as impossible or incorrect from a positivist viewpoint. Furthermore, the specific choices made above created the opportunity to reflexively access a unique corpus of professional records, personal notes and own memories generated during the performance of the city.people.light direction and consulting tasks. Such access to a critical quantity and quality of extant materials and implicit knowledge (the latter to be factored as outcome of self-reflection) was key in determining the choice for a mixed method approach. In such a mix "critical realism" is selectively adopted to formalize secondary insights that do complete the "constructivist grounded theory" primary findings, e.g. the actual physical presence of books in space. In an actionable perspective, specific research objects within this PhD study will be limited to and focused on:

a) the processes pertaining the global editions 1996/1997 (background only), 2006 (research), 2007 (publication, launch) of city.people.light, performed by Philips Design and Philips Lighting;
b) the processes pertaining the city.people.light European edition 2011–2013 (research) /2014 (publication and launch), under the name *"Create the Livable City"* performed by Philips Lighting BV, The Netherlands;
c) resulting in the products (books) on urban futures "city.people.light" printed in 1997 and 2007 in Eindhoven, the latter authored by Bevolo (Ed.), Pereira, Venzke, and *"Create the Livable City"* printed in 2014 by EMAP, London and authored by Bevolo and Rosenius.

As per further specification in the two dedicated paragraphs below the books include text-based and visualization (sketch-based) records of interpreted desk research, processed expert interviews (14 sessions with 15 respondents in the global study, 8 sessions with 8 respondents in the European study) plus a number of design workshops (four sessions for the global study: Lyon, Philadelphia, Shanghai, Hamburg, all in 2006, and six sessions for the European study: Bratislava, Copenhagen, Turnhout, Dubrovnik, Glasgow (all between 2011 and 2013), plus Wroclaw, Poland, extracted and adapted from the "Architects of Light" Polish national program, 2012-2013). "Architects of Light," as a process, remains ancillary - it was determined by Philips Lighting Poland SA exclusively on the basis of country marketing objectives. Nevertheless, "Architects of Light," generated output of exceptional design quality, resulting in the Wroclaw workshop concepts to be fully included with the European series featured in the "*Create the Livable City*" 2014 book. An additional disambiguation should be reiterated; while the city.people.light 2007 book and materials have been referred to in Chapter 4 above as "theoretical sources", for the purpose of describing city.people.light at the level of its initial epistemological references the same book will be now referred as one of the "objects of research". Therefore, generating the evidence or the questions that establish whether city.people.light might be entitled to a formal status beyond its business value; from the viewpoint of meaning-making and behavioral impact.

5.4.2) Products ("structural moments") – scenarios and concepts communication

In order to tackle the Central Phenomenon analysis a step back to the theoretical Chapter 1 will be made. Referring back to the notion of "critical realism" and its impact on empirical phases of research as anticipated by Bell; "*Critical realism introduces the notion of "justified belief" in the truth of a proposition: the focus is not on the truth of the proposition itself, but only that a person is justified in believing that the proposition is true. To verify the reasonability of such belief in the truth of a proposition, the critical realist approach tries to show that it is false and therefore not worth believing, hence the definition of "criticism": if all critical attempts to show that the proposition is false do fail, than the belief in the truth of that proposition is justified"* (Bell, 1997 – 2003, p.210). In the case of city.people.light books published in 2007 and 2014 there is no need to "surrogate reality" by means of posits as the actual research objects exist in space since the time of their finalization and publication in May 2007 and April 2014 respectively. The methodological choice identified "books" to stand for design as a "communication" purposed device in the structural moment of city.people.light programs and as the reference for this PhD research because they do offer the highest degree of consistency, continuity and rigidity over time. It might be objected to that a number of structural moments crystallized city.people.light processes, from corporate presentations of the program to commercial brochures where its assets were exploited. However, no other

manifestation of a structural moment in the process might offer the permanence in time and form as the books do, since they were edited, designed and printed to represent the official outcome of the program at a certain stage for all relevant public stakeholders and audiences and beyond. Furthermore, as opposite to digital platforms, from Internet websites to PowerPoint presentations, books present an objective materiality that will remain unaltered over the years and the decades as they were conceived as finalized, finished and final products. Books represent a specific number of pages where content was articulated in specific taxonomic order, for specific rhetorical and communication purposes.

Having further clarified the rationale behind the methodological choices made this paragraph will provide a technical introduction of the two "research objects". Namely the actual books as printed and published, according to the technical product descriptions:

- Authors: BEVOLO, M. (Editor and Author), PEREIRA, F., VENZKE, M.
- Title: city.people.light
- Subtitle: Future urban lighting concepts
- Year: 2007
- Number of pages: 164
- ISSN number: 1874-7027
- Publisher: Philips. Eindhoven
- Art Direction and Design: King design, Amsterdam, The Netherlands
- Editorial Management: Philips
- Distribution: Philips (not for sale)
- Printed copies: unknown (first run only)
- Cover: Hard Cover
- Cover image: graphic translation in grey color of "city" (a building), "people" (a couple) and "light" (a lamp), on white background (Philips corporate identity)
- Back cover: Philips logo in Pantone blue on white background
- Website: not available
- Illustrations, unless otherwise specified: Kees Ariens, Dido van Klinken, Chia-Chun Liu, Jasmine van der Pol
- Launch: Philips Event, Rotterdam, May, 2007

- Authors: BEVOLO, M., ROSENIUS, T.
- Title: Create the Livable City
- Subtitle: city.people.light
- Year: 2014
- Number of pages: 160
- ISBN number: 978-0-9567877-6-7
- Publisher: AJ Books / EMAP, UK, powered by the Top Right Group
- Issued with The Architect's Journal or by Philips
- GBP 20 / Euro 24 where sold separately
- Art director: Brad Yendle
- Acting AJ Editor: Rory Olcayto
- Designer: David Marsh
- Graphic Design and Editorial Management: Architectural Journal, London
- Distribution: worldwide (amazon.com, international flagship design bookshops)
- Printed copies: 9.000 (first run)
- Cover: Soft Cover
- Cover image: orange light disc on a black floor, with people gathering (concept

mock up photography: “Bonfires of hope”)
- Back cover: graphic translation in white color of “city” (a building), “people” (a couple) and “light” (a lamp), on black background (no corporate identity)
- Website: www.philips.com/citypeoplelight
- Launch: Light & Building, Frankfurt, March, 2014

From a mere visual and tactile viewpoint the 2007 book, also described as the “white book”, is square shaped with 32 cm per side. The 2014 book is instead a soft cover rectangle in the same size as the Architectural Journal, hence 26.5 cm by 21 cm. The sensorial impact at tactile level is extremely different as the 2007 book recalls the “coffee table” format and can sustain an exclusive distribution strategy. Whereas, the 2014 book format was specifically decided in order to minimize the cost of postal shipment and enable a major co-distribution with the Architectural Journal (targeting its subscribers) at the moment of launch.

The editorial architecture of the two products is similar with an opening part related to urban futures: *“Urban trends. The primary research for city.people.light 2007 relied on the vital contribution of true masters of architectural thinking”* (pages 8 through 21, in 2007) and *“Urban Futures”* (pages 11 through 35, in 2014). Interviewed experts were introduced with short notes in a double-spread page at the opening of the book (pages 6-7, 2007) to be then reprised with their bibliographies in the Appendixes (pages 158-161, 2007) without any portrait. The 2007 architectural thought leaders were identified as follows:

1) Sir Richard Rogers, London
2) Richard Meier, New York
3) Bernard Tschumi, Paris / New York
4) Hans Hollein, Vienna
5) Odile Decq, Paris
6) Reinier de Graaf, partner at Rem Koolhaas’ AMO research office, Rotterdam
7) Gary Chang, Principal at EDGE Design, Hong Kong
8) Winy Maas, partner at MVRDV, Rotterdam
9) Robert Venturi and Denise Scott Brown (Philadelphia, in the text)
10) Andrea Branzi, just back from Tokyo (Milan, in the text)
11) Italo Rota, just back from Venice (Milan, in the text)
12) Dejan Sudjic (London, in the text)

On the contrary, the 2011-2013 “Biographies of interviewees” were introduced at the end of the editorial flow (pages 156-158, 2014), with portraits. The 2011–2013 European experts were identified as:

1) Beata Urbanowicz (Wroclaw)
2) Cathy Johnston (Glasgow)
3) Hans Mommaas (The Netherlands)
4) Astrid Piber (Amsterdam / Shanghai)
5) Paolo Verri (Italy)
6) Kari Atturi Korkman (Helsinki)
7) Samir Bantal (The Netherlands)
8) Peter Gero (Germany)

The 2007 architectural thought leaders were presented in more prominent fashion than

the 2014 European experts. The 2014 European experts covered architectural firms (Piber, Bantal), city management department (Urbanowicz, Johnston), academia (Mommaas) and the field of urban leisure (Mommaas, Verri, Korkman). In both books interviewees were directly quoted, yet without any direct personal identification or attribution to transparently connect any specific quote to any specific individual, to simplify the editorial process at the moment of writing and producing the deliverable and preventing any possible dispute or liability on direct statements. Both books present the urban futures matrix (page 13, 2007) (page 16, 2014). In 2007, an additional expansion on generic geographic city macro-trends was provided (pages 16 through 18, 2007), whereas in 2014 the research study offered detailed specification of each scenario cell of the matrix (page 20 through 32, 2014) each complete with a "key trigger" (a synthesis of a few lines capturing the essence of the scenario) and a related hypothesis of lighting challenges (a translation of the scenario into one applicative question for lighting design). The 2006 sketches from global workshops (Lyon, Philadelphia, Shanghai, Hamburg) were introduced as "Inspirational" with double-spread pages re-connecting the different regions to the original expert interviews, with unattributed quotes (pages 28-29, 66-67, 90-91, 122-123, 2007), complete with the lists of workshop participants. The 2011 – 2013 sketches and mock photographs were introduced with an overview of the six cities involved (Bratislava, Copenhagen, Turnhout, Dubrovnik, Wroclaw, Glasgow) (pages 38-39, 2014) and by an organic overview of design and organizational issues related to the workshops themselves (pages 40-41, 2014). In the 2007 Appendixes, a report commissioned prior to the program to the University of Bartlett, UK, attributed to P.J. Raynham, BSC MSc MILE MCIBSE FSLL was included. Covering technical topics, under the title "Public Lighting in Cities" (pages 152-156). In the 2014 introductions to each concept with a socio-cultural reflection on the result and a "philological" analysis was performed, re-connecting the 2011-2013 new design sketches with a number of 2007 published sketches, reprinted in small format, clarifying specific urban matrix references (pages 49, 53, 57, 63, 67, 71, 77, 81, 85, 91, 95, 99, 103, 109, 113, 117, 121, 127, 131, 135, 139, 143, 147, 2014). The 2007 conclusions were limited to one page (page 150, 2007), under the programmatic title: "Open conclusions for a program that will never end" deliberately stating the intent not to supply any conclusive remark as a way to interpret the nature of "open platform" of city.people.light. The 2014 conclusions provided instead four directions, articulated in 16 questions corresponding to the 16 cells, or scenarios, in the urban futures matrix, therefore "packaging" the entire book from the perspective of this tool (pages 153-155, 2014).

The aesthetic and sensorial core manifestation of both books is visual yet different in presentation and clustering. The 2007 design concepts were limited to one sketch per each idea. Clustered by city (33 sketches referred to Lyon, 19 sketches referred to Philadelphia, 27 sketches referred to Shanghai, 25 sketches referred to Hamburg) each accompanied by a concise explanation provided in the form of a generic comment. Yet, sketches were generated as generic, universal, disentangled from any specific city or location, with the sole purpose to generate visions of urban futures at the general level. The only exception was Wroclaw in 2013, where the ambition was to explore future solutions to directly improve the experience of Piludski Square, the workshop location, for their inhabitants and citizens in general. This specific Polish event might be considered closer to Action Research principles, also in light of the underprivileged nature of the urban area at hand. Concepts or cities were not identified by means of any specific subtitle, in a presentation style recalling plain documentation of the results of sketching, recalling the 1997 first city.people.light book. The visual impact was diversified as more sketches were executed on black paper versus white paper. The

2014 design concepts were each presented as concepts with a richer editorial and visual power, following the above mentioned "philological" introduction. Each concept was edited with "Lighting design notes" at technical level and visualized by means of both sketches and photographs of mock up installations executed during the workshop. With a more balanced division per single city (four concepts in Bratislava, three concepts in Copenhagen, three concepts in Turnhout, four concepts in Dubrovnik, four concepts in Wroclaw, six concepts in Glasgow). Additionally, differently than in 2007, each concept was given a specific title:

a) Natural symbols, artificial environments (Bratislava)
b) Conversation pieces for city dialogs (Bratislava)
c) Active Windows (Bratislava)
d) Nightlife towards eco-lifestyles (Bratislava)
e) A space with a view, a place to relax (Copenhagen)
f) Repurposing objects to reconnect places (Copenhagen)
g) The city as a narrative trigger (Copenhagen)
h) A Speaker's corner for augmented dialogs (Turnhout)
i) Digital futures for metropolitan regions (Turnhout)
j) Eclectic urban landscaping (Turnhout)
k) Monumental storytelling: the city in time (Dubrovnik)
l) Leisure repurposing, historical roots (Dubrovnik)
m) Urban democracy as a historical dialog (Dubrovnik)
n) The city reconnecting to its natural context (Dubrovnik)
o) Emergence of a vernacular urban theme (Wroclaw)
p) Beauty and a Beast (Wroclaw)
q) An island of green at the heart of the city (Wroclaw)
r) City zoning by lighting systems (Wroclaw)
s) Bonfires of hope (Glasgow)
t) Archeology of a future urban theme (Glasgow)
u) Active stairs for liquid lifestyles (Glasgow)
v) Divine diversity – a journey through eclectic spaces (Glasgow)
w) Urban pulse – nightlife as open organism (Glasgow)

The above technical description is based on extant documents, namely the two specific research objects.

5.4.3) Processes ("practice") – scenarios and concepts creation

In the absence of an objectively consolidated "product" the city.people.light "process" will be reviewed and reconstructed by means of the Case Study methodology, as ancillary within this mixed method PhD study. The "process", as a research object to be analyzed as a first step of this PhD project, will be focused on a specific series of managerial events between 2010 and 2011 leading to the definition of workshop format and process requirements for the 2011–2013 European program. These events, traced back by means of extant documents, start from the first contacts and meetings and end with the decision-making related to the *"Create the Livable City"* program specification. The Case Study approach was originally considered as potentially applicable to this PhD research project as based on the specific object of enquiry: *"real life bounded systems over time, through detailed in depth data collection… from multiple sources: observations, interviews, audio/video materials, documents, reports"* (adapted from: Creswell, 2013, 97). If the context might have seemed appropriate, the potential fit needed to be

extensively probed. Starting from a formal definition of "case study as a research method", this includes the following elements: *"…a case study …tries to illuminate a decision or a set of decisions: why they were taken, how they were implemented, and with what result"* (Schramm, 1971, quoted in: Yin, 2014, p.15). Additionally, from the same source, in presence of research questions in the forms of;: "How" or "Why", a case study approach may be optimally selected when: a) the control of behavioral events is not required (as in experiments) and when, in parallel: b) the focus is on contemporary events (COSMOS Corporation table, reproduced in: Yin, 2014, p.9). This might offer a first challenge since this PhD addresses past events. However, George and Bennet (2005) further specify the case study process as being based on backtracing, hence not necessarily related to contemporary events. "Backtracing" based case study analysis is derivative from history and political sciences and is particularly suitable to understand organizational or managerial decision-making processes, where for the 2011–2014 European program- documental and factual evidence are sufficiently available. Based on the principle of "backtracing" this specific paragraph of this PhD methodology will be governed by the case study review of specific decision-forming organizational mechanisms. This methodological choice was made with the purpose of creating a counter-balancing moment to the autobiographic reflexive considerations based on ethnography. In this chapter the reader will be invited to "be there" by developing those mimetic literary devices that will enable a *"vicarious experience"* (Stake, 1995, p.63). Here, the PhD researcher will be positioned as the *"interpreter"*, according to the constructivist notion of analysis (Stake, 1995, p.99); also in line with the reflexive paradigm. The paragraph will specifically focus on a documental study of the genesis of *"Create the Livable City"* partly conducted according to the principles of "process tracing", defined as; *"The detailed examination of an aspect of a historical episode to develop or test historical explanations that may be generalizable to other events"* (George, Bennett, 2005, p.5). The object will specifically be the genesis of *"Create the Livable City"* as a particular European city.people.light class program. With the objective to understand and describe how managerial processes took place before the program was defined and launched, leading to the creation of the program itself, including workshop format and process management criteria. It must be however, reiterated how the primary purpose of dissecting the *"Create the Livable City"* management practices is not to rigidly identify independent and dependent variables in order to determine a positivistic chain of *"causal effects"* (George, Bennet, 2005, p.11), but *"examining complexity in detail"* by means of *"process-tracing"* that is in line with the epistemological approach of this study, *"fundamentally different from statistical analysis because it focuses on sequential processes within a particular historical case, not on correlations of data across cases"*. (George, Bennet, 2005, p.13).

It can be clarified that *"Create the Livable City"* was initiated (since the Winter 2010/2011) by Philips Lighting EMEA Urban Outdoors. With a number of formal meetings aimed at sketching this European adaptation of the city.people.light generic approach as a unified program for the biennium 2011/2013. Philips Lighting B.V., Professional Lighting Solutions EMEA allocated ownership of the program to the Channel Marketing Manager Outdoor Lighting at the time in the person of Keith van Schooten. Since the 01/01/2012, Van Schooten has been replaced in this function by Jaap van der Linden, currently managing it at the time of completing this PhD. In a later communication of 05/11/2010, as mentioned below, Van Schooten clarified that next steps of this European *"campaign",* under the temporary title: *"Design a Liveable City",* were allocated to the Senior Marketing Communication (MarCom) Manager Outdoors EMEA and Interim MarCom Director, Nils Hansen, who followed up with an invitation for

a kick off meeting planned on 01/12/2010 at Philips Lighting, Eindhoven (Nils Hansen, digital communication, 10/11/2011). The ambition for the 2011 aforementioned campaign was semantically substantiated in the expression *"event series for 2011"*. Hansen represented the executive management ownership of the program in 2011 and 2012 to then be replaced in this function starting 01/01/2013 by Rinco van Rijn, Sr. Manager Marketing Communications Europe Outdoor lighting. The event design and management of locations was then assigned to DDMC of Brussels, in continuity with the Malaga one off dry run, with their founder and senior partner, Jean Pierre Deschepper, to become a fixed member of the core project team. Responsibility for the workshop management and the provision of specific lighting design and expertise was allocated to an external contributor, Tapio Rosenius, MSc, founder of Lighting Design Collective in Madrid and London, a long term member of the Professional Lighting Design Association of Gutersloh, Germany. Rosenius would therefore provide the authority, the credibility and the necessary creative leadership to connect the city.people.light format to the crucial addendum of direct assemblage of working experimental prototypes enabled by a number of containers with Philips Lighting products and control systems to be provided at each event venue. The role of research lead for the design and execution of the primary research, secondary research and the activation thereof during each workshop was allocated to the PhD candidate. This European program was conceived "inside out". This aimed at both replicating the thought leadership approach of city.people.light whilst starting from the relational value of workshops with lighting design decision-makers. Such genesis primarily stems from a concrete managerial viewpoint in the preliminary definition of an appropriate workshop format, in line with the theoretical notes in Chapters 2 and 4 on workshop management. Next to this immediate need to design a relational event format the historical city.people.light background was kept as reference; with the publication of a book at the end of the process.

At the start of the process, the first meetings were focused on how to extrapolate the elements and the assets that would constitute a framework for a number of repeatable workshops according to unified and repeatable format and process management criteria. A generic dry run workshop involving a selected team was run in the Summer of 2010 in Malaga, Spain, resulting in a first draft rationalization of the program according to the following event scheme communicated by the program owner in digital format to all parties to be involved at the start of the process:

"Day 1:
Positioning statement & global trends presentation by Philips
Welcome from hosting city representative
Panel discussion on trends… with the audience as well as the lead LD (=Lighting Design)*, city representative and perhaps other external invitees*
Lead LD (Tapio Rosenius) gives guest lecture on own vision w/r to lighting
Hands on lighting workshop to light up local venue lead by external lead LD
Explanation of products available by LD Philips
Hands on lighting workshop facilitated by external LD and Philips LD
Dinner

Day 2:
Project presentation by external LD & Philips
Master planning presentation by Philips
Co-development presentation by Philips
Possible second panel discussion?

Closure"
(Keith van Schooten, digital communication, 05/11/2010)

The equivalence of this event concept with the city.people.light event design was intentional and such aim was achieved by injecting, within *"Create the Livable City"*, all the components of the 2007 global program, namely: 1) inspirational lecture about urban futures trends; 2) conceptual workshop performance, facilitated by experts in lighting design; 3) creative output as based on the co-creative teamwork of participants. The presence should be highlighted already at such very early stage in the "Livable Cites" event design mix of two additional components with highly interactive value, namely: 4) an expert panel to activate urban futures insights for local audiences; and 5) experimental prototyping to activate concept thinking from sketch to real life, by means of on-site working installations.

The documentation available to cover the early stages of the 2011/2013 program starts, therefore, from this specific "workshop planning" item as apparent key priority in terms of strategic marketing and relationship management. Additional activities as functional to support the workshop series might be mentioned, e.g. socio-cultural study of urban futures. It must be specified that a clear awareness was observed in face-to-face meetings, and in all exchanges, that a program of workshops alone, void of any urban futures element, would not qualify as referable or comparable to the city.people.light format and legacy. This was once again not the wish of the commissioner. A first selection of possible activities in terms of socio-cultural research (as formal fulfilment of the city.people.light approach) was requested at the level of a preliminary proposal by Van Schooten and Hansen in a face-to-face meeting on 03/12/2010. In which, the response of the PhD researcher, in his distinct and formal function of consultant to Philips Lighting, provided a first draft short list activities on the same date. Including potential internal alignment with Philips Centre for Health and Well Being; a think tank independently run at corporate level in digital communication:

"1) URBAN FUTURES

1.1 review / calibration urban lighting trends (input: Philips Lighting)
1.2 review / calibration urban trends (input: Philips Lighting / Philips Centre Health & Well Being / desk research)
1.3 consolidation of key trends / issues and preparation of validation questionnaire
1.4 selection of 5 EU-relevant respondents (input: Philips Lighting) to validate / enrich trends (skype / face-to-face?)
1.5 consolidation of Urban Futures report in in Word Document (reference: 3.500 words), to be used as base for presentation / workshop

[…]

4) EDITORIAL CONSULTING

4.1 PRIOR TO EVENT PROGRAM: define a specific editorial brief / format, to ensure necessary content thereof is efficiently / effectively generated during events with the possibility to track progress (e.g., 15 sketches per event as target for workshop delivery)

4.2 AFTER EACH EVENT (4x): evaluation of generated content for editorial purposes + editorial summary to ensure both content management and efficient / effective final

copywriting

4.3 AT THE END OF THE ENTIRE EVENT CYCLE (1x): analysis overall outcome: alignment and consolidation of content, in the light of MarCom objectives of Philips Lighting

4.4 Editorial creation of text: title, headlines, main body, captions, bibliographic sources / references (ref: 10.000 words+) - quality benchmark: city.people.light 2007

4.5 Editorial consulting on final product (graphic design / art direction)"
(Marco Bevolo, digital communication, 03/12/2010, 11:58AM)

The combination of both clusters 4.1) and 4.4) above already offers a configuration for the program reaching further than plain Customer Relationship Management in the direction of a full city.people.light scope. The integration of appropriate fine tuning of the above preliminary proposal on urban futures, with the event and workshop design notes that will follow, resulted once again in the substantial respect of the sequence and the assets of city.people.light 2006. From where the main methods and tools would also be recuperated and regenerated.

This was registered in the integration of specific consulting modules by Bevolo within the preliminary sketch of contributing packages, also communicated to Van Schooten and Hansen as feasible within the same digital communication, 03/12/2010, 11:58AM:

"2) CONTRIBUTION TO EVENTS: PRESENTATION

2.1 preparation of general EU trend presentation: 1x (80% of the delivery - same for each event)
2.2 preparation of specific local adaptation / references / due diligence homework: 4x (20% of delivery - new for each event)
2.3 editorial input / consulting / copywriting on the creation of the Philips Lighting PPT with urban trends
2.4 on site execution (4x) of event after dry run with Philips Lighting team (1x) in Eindhoven for calibration

3) EVENT CONTRIBUTION: PANEL

3.1 Editorial consulting: creation of panel brief document + declination of "urban futures" into "panel topics / themes"
3.2 Networking / consulting on panel member selection
3.3 Preliminary briefing of individual panel members (one to one telco), with reiteration when needed
3.4 Final briefing of entire panel jointly on site (1 hour), including possible input for stage arrangements
3.5 Execution of panel / stage performance (4x)"
(Marco Bevolo, digital communication, 03/12/2010, 11:58AM)

The draft sketch for a prospect "Module 2" as firstly described above implicitly represents the "tipping point" for the ambition by Philips Lighting EMEA to connect the embryonic level of this 2011/2013 European program of workshops and events to the legacy of city.people.light. Not only in terms of marketing and profiling but also in terms of primary

research generation and secondary research contribution, for the purpose of directly refreshing the 2006 urban futures findings. In this respect the networking and relational opportunities as described in paragraph 5 of Chapter 4 are confirmed in *"Create the Livable City"* as part of its "multipurpose strategy. Additionally, from a multipurpose strategy perspective, a local expert panel is an amplification of both thought leadership in the vernacular context of each event and of relational focus. Of course, customer relationships are not solely the purpose of *"Create the Livable City"*. Although, they maintained a primary function in aggregating the different modules and in determining the mutual relationships of relevance and priority in the event design process at level of a possible "equifinality" status being identified for more event components around CRM as ultimate DNA of *"Create the Livable City"*. The above sketched process reflected, therefore, both the ambition to comply in continuity with the city.people.light workshop format as described in Chapter 4 above as well as the necessity to extend the event planning to include an additional prototyping phase (identified as *"Hands on lighting workshop").* As based on the minutes of the meeting that took place on 05/01/2011, as circulated by Hansen in a digital communication on the same day, the event program further matured to the following draft shortlist of activities:

Day 1:
09:00 Welcome and positioning statement from hosting city/Philips representative
09:45 Global trends presentation by Marco
10:30 Coffee break
11:00 Panel discussion on trends incl. Q&A hosted by Marco with the audience as well as the lead LD, city representative and perhaps other external invitees
12:00 Lead LD (Tapio) gives guest lecture on own vision w/r to lighting
12:45 Working lunch (seated in groups)
14:00 Workshop (accompanied by 1 illustrator, documented on photo/video by agency)
14:00 – 15:00 City futures - Visionary conceptions to create a liveable city lead by external lead LD / panelists (5 groups/per-defined topics) (Marco & Tapio to float)
15:00 – 15:30 Coffee break & snacks (Marco to create conclusive summaries with panelists)
15:30 – 16:30 Explaining the scenarios and some basic means to translate ideas on existing scenery (LD Philips & Tapio) (all groups united)
16:30 – 18:00 Hands on lighting workshop facilitated by Tapio and Philips LD (illustrated in color by illustrator)
18:00 – 20:00 Dinner
20:00 - 21:30 Hands on lighting workshop facilitated by Tapio and Philips LD (documented on photo/video for next morning)
21:30 Closure with drinks and small walk-around (parallel demounting of products by agency)

Day 2:
09:00 Presentation of visions and project by groups (Marco & Tapio)
10:00 Coffee break
10:30 Master planning presentation by Philips LD
11:15 Co-development presentation by Philips
12:00 Final discussion & closing & group picture
12:30 Closing lunch
(Nils Hansen, digital communication, 05/01/2011)

With a digital communication of 05/01/2011, the roles and responsibilities were

confirmed, with additional steps for future execution identified as follows:

1 "Feedback from local organizations on venues and number of events in February
2 Concept for the editorial output to be defined
3 Trend research interviews should be covered with video documentation at least three
4 Interviews will be delivered unedited by Marco to Philips for further editing
5 Raise number of interviews to 10-15 to enrich the trend research
6 Connection between LIAS (Vincent / Jasmine) and Marco for trend research
7 Alignment between Tapio and Marco
8 Panelists are "ambassadors of light" in working groups, supported by illustrator
9 Day 0 for pre-brief and local content in panel discussion
10 Event dates should be compiled in September / October".
(Nils Hansen, digital communication, 05/01/2011)

From these preliminary steps, particularly including the shortlist of next actions to be taken, as highlighted in the last quote above, a first set of preliminary hypotheses can be drafted, in terms of scope and ambitions of the program:

a) National and local organizations of Philips Lighting were necessary stakeholders; due to the de-centralized Philips structural nature of multiple business entities with precise brand and sales targets set by headquarters. Yet, with a sensible degree of autonomy in terms of tactics and decision-making. It was therefore a necessity to exercise "moral suasion" and to offer clear benefits to local representatives in order to crucially have them on board of the *"Create the Livable City"* European program;

b) A mission-critical connection was to be made with the Lighting Application Services team in Lyon, France, often indicated as "Philips LD". Where, Senior Specialists Vincent Laganier, Arch and Jasmine van der Pol would manage the backbone of the program. Including the essential hardware components and technical assets necessary for the assemblage of the experimental working prototypes;

c) Although still undefined it was a consolidated element of the overall plan, from its start, to solidify the research and the workshop output in an editorial product. Hence, extending the city.people.light tradition of publications and cross-fertilization according to the multi-purpose strategy;

d) At the time of Hansen's memo of 05/01/2013, the ambition to execute a new round of qualitative expert interviews (possibly playing an equivalent role to Delphi in the perception of Philips Lighting management, although not being structured according to Delphi design requirements), in the light of refreshing the 2006 socio-cultural and urban futures components of the city.people.light research stream was set at 10 to 15 dialogs. Hence, at the same level of investment as in 2006, although not at global level any longer. Such ambition proved not to fit with budgetary feasibility. However, it demonstrates a level of sensibility for this kind of research approach, in line with city.people.light and the "equifinality" principles of multipurpose strategy;

e) As an additional trait of this European program the specific need to align between socio-cultural and urban futures research (here identified as "Marco") and the

lighting design ("Tapio"); this requirement represented a challenge in terms of continuity and consistency within *"Create the Livable City"*. However, it offered the opportunity to reinforce the inspirational part of the event by combining socio-cultural futures with design thought leadership. Hence, exercising an increased level of multidisciplinary authority in terms of competence and knowledge to create the fundamental peer-to-peer barter mechanisms identified by Castells as essential in networking and described in Chapter 4;

f) The role of panelists was still not consolidated in a pure knowledge management contribution but it was under fluid review. Exploring more possibilities to leverage their presence in order to connect the workshop part of the events to the actual direct input from external protagonists of the urban design field, in the specific regions where events were to be staged. Such a role would be left loose in terms of its requirements throughout the program, as some panelists would only contribute in terms of panel discussion (e.g., P.Gero in Bratislava, M.A.Schreurs and A. Hardorff in Turnhout), while other panelists joined the follow up in terms of teamwork and co-creative generation of design concepts (e.g. M.Stipic in Turnhout);

g) Being the program allocated to Segment Marketing and Marketing Communication a high degree of relevance was invested in the relational and networking sides of the program. However, the primary importance of both urban futures research and design final output was clearly reiterated.

The above preliminary notes were based on the earliest stage of negotiation, co-creation and consolidation of the *"Create the Livable City"* 2011 / 2013 program of activities. In order to provide a cohesive and coherent representation of how the final program was launched in late Spring 2011 the next points of this paragraph will present documental evidence about its milestones and fundamentals by aggregating information from different sources; always related to the above working team and its extensions or variations in time. As a final point of convergence, among different internal stakeholders and consulting experts, the process as it emerged can be retroactively summarized as follows in the next bullet points, aggregated on the basis of coherent modules within the program, with the final objective to achieve the creation of a new version of the 2007 city.people.light matrix as presented in Chapter 4, including:

a) A urban futures study to update the city.people.light matrix, by means of a systematic round of expert interviews at European level, with focus on practitioners, professionals and managers directly involved with selected crucial topics and motives of urban futures with final selection being: Kari Korkman (Director Helsinki Design Week), Paolo Verri (fr. City Management Turin and Director Matera 2019 European Capital of Culture program), Cathy Johnston (City Management Glasgow), Prof. Dr. In. Hans Mommaas (University of Tilburg) (first selection of prospect interviewees confirmed in digital communication by Van Schooten, 31/05/2013), Astrid Piber (Partner UNStudio and Architect) (confirmed in digital communication by A. Piber, 15/06/2013), Samir Bantal (fr. Associate Professor at TU Delft and Architect) (discussed in digital communication and teleconference, intermediate appointment set on 06/06/2011), who were interviewed in 2011, and Peter Gero (Urban Planning, Hamburg and Bratislava) (confirmed panelist for Bratislava workshop, M. Michalova, Philips Slovakia, 21/11/2011; and confirmed interview, digital

communication, Van der Linden, 21/03/2013 and Michalova, 22/03/2013) and Beata Urbanowicz (City Architectural Planning, Wroclaw) (confirmed in digital communication by D.Slawinska, 27/06/2013). Who were interviewed in 2013 for the purpose of intermediate validation and enrichment by including Germany, Slovakia and Poland with direct references to the local architectural and urban design trends. Other possible interviewees were discussed in Spring 2011 as eligible but proved not to be feasible for timely inclusion in the planning of sessions;

b) Consolidation of the urban futures matrix in an intermediate research report with adaption from such report of 16 "fiches" to be first simplified for actionable use in co-creative workshops and to be then expanded into the required text to support the authority of a final editorial product (final delivery in digital communication to Van der Pol and Rosenius, for alignment with "LD", Bevolo, 16/11/2011);

c) Five workshops to be planned in relevant cities to regionally cover the geographical areas of interest for Philips Lighting EMEA in terms of urban futures and commercial prospects. With the final selection being: Bratislava for Central Eastern Europe (digital communication by Hansen, 03/10/2011), Copenhagen for Nordic Countries (digital communication by Hansen, 03/10/2011), Turnhout (replacing Eindhoven as originally planned in November 2011 in coincidence with the GLOW light and art festival) for Benelux (digital communication and confirmation of the switch by Hansen, 02/12/2011), Dubrovnik (for Southern Central Europe) (digital communication by Hansen, 03/10/2011) and Glasgow (for UK and Northern / Central Europe) (final confirmation by digital communication Van Rijn, 04/06/2013); to this short list, a workshop held in Wroclaw, Poland as part of the national program "Architects of Light" (Slawinska, PowerPoint presentation for internal national organization webinar, 28.08.2013) was added in view of the consistency of the city.people.light approach and of the applicability of the specific outcome to the European context (digital communication, Van Rijn and Slawinska, 31/05/2013);

d) Main points of alignment with respect to the 2006 city.people.light global approach were substantiated in: a) an equivalent process for workshop management, starting with a urban futures presentation based on the matrix and leveraging on such matrix for workshop management; b) focus on dialog and interpretation of urban futures, with the creative output of participants as key priority; and c) final product being consolidated as a book to be printed and distributed by Philips Lighting;

e) Main point of variation with respect to the 2006 city.people.light global approach were substantiated in: a) the research task to specify in terms of scenario triggers each of the 16 matrix cells individually. Hence, achieving a deeper description of "possible futures" as defined in Chapter 2, paragraph 1 above; b) the package of lectures and presentations to support workshop activities was extended to include a lighting design introduction and site-specific information for each city; and c) the design task to generate not just a vast quantity of visual sketches as workshop deliverables (e.g., around 40 in the 2006 city.people.light sessions) but the actual installation of working prototypes materializing the specific concepts as defined by each team of participants.

It was mentioned above how a peculiar relation existed between the European *"Create the Livable City"* and the Polish "Architects of Light" programs. In particular, all key modules were equivalent, with the main organizational differences that can be shortly captured and reiterated as follows:

- in "Architects of Light", the program was maintained within the time constraints of one full day only. With an afternoon/evening workshop modeled on the *"Create the Livable City"* format and late night debriefing for evaluation. Instead of distributing the entire process across two days;

- in "Architects of Light", there was no panel session to connect the European presentations on urban futures and visionary lighting trends with the concept phase;

- in "Architects of Light", there were more opportunities to install the experimental prototyping in "real life" sites, e.g. concrete streets and squares in the city. Whereas, *"Create the Livable City"* events were set in indoor locations with urban characteristics, therefore staging simulations of urban design.

Of course, the staffing of the two programs reflected the different international and national respective focus in terms of lighting design and workshop management consultants. While "Architects of Light" also itself open to student teams beyond just professional audiences. Nevertheless, in spite of the organizational differences dictated by the different context, the substantial identity between the two programs can be recorded in terms of: a) fundamental structural and practice-focused moments; b) operational connection between the European urban futures matrix and co-creative workshop sessions; c) focus on networking and relational opportunities; d) the same performance measurement system, as it will be detailed in the Chapter 8.

5.5) SECONDARY AND PRIMARY RESEARCH: ASSETS AND ACTIVITIES

5.5.1) Secondary Research: Extant Documents

This paragraph provides due identification of the extant documents and elicit assets available to the PhD research, to complement the primary research data analysis by means of desk research or memory recall, where appropriate. Such secondary assets comprise and exceed the plain "research objects" as above specified and also include: a) 1996–1997 referred documentation, in order to analyze, understand and describe the history of city.people.light; b) 2006–2007 and 2011–2014 related sources, beyond the two books and the specific managerial and workshop processes identified as "research objects" above. Furthermore, the following secondary research assets will be available to execute the present study; excluding 13 primary research interviews specifically performed:

5.6.1.1) 2006 – 2007 Global Program: city.people.light:

a) Book: text, sketches, bibliography;
b) Non included in the book: Interview transcripts: Hans Hollein, Bernard Tschumi, Andrea Branzi, Italo Rota, Deyan Sudjic, Richard Rogers,

Richard Meier, Odile Decq, Reinier de Graaf, Ole Scheeren, Gary Chang, Winy Maas, Robert Venturi and Denise Scott Brown;

c) Partial PPT documentation of the Rotterdam 2007 panels during the launch event;
d) Personal recall of post-program deployment sessions: 2007 – 2014 (LUCI City under Microscope Eindhoven, 2007; Art in the Open, London, 2008; UNAM post-graduate seminar cycle, 2010);
e) PhD specific interviews (13) to be coded: selected quotes

5.6.1.2) 2011 - 2014 European program: Create the Livable City:

a) Book: text, sketches, photography, draft versions of text, documentation of managerial processes leading to decision-making;
b) Not included in the book: Interview transcripts: Samir Bantal, Paolo Verri, Peter Gero, Kari Korkman, Cathy Johnston, Astrid Piber, Prof. Dr. Ir. Hans Mommaas, Beata Urbanowicz (remote interview exceptionally conducted text-on-text through Philips Lighting Poland SA);
c) PPT presentations and background materials for 5x European workshops: Bratislava, Copenhagen, Turnhout, Dubrovnik, Glasgow, plus equivalent materials from Wroclaw, Poland (workshop originally performed as part of "Architect of Lights" Polish national program);
d) PPT presentation and personal recall from the 02/04/2014 launch presentation with Mr. Frans van Houten, President, Royal Philips NV, during the Light & Building Fair, Frankfurt, Germany;
e) Video recordings and additional image materials documenting the European workshops (not published)
f) Image bank and collateral materials developed by Philips Lighting BV to support the launch and promotion of the book (published): http://www.lighting.philips.com/main/citypeoplelight/research.wpd
g) Net Promoter Score feedback for European workshops
h) Collateral materials, personal memories of post-launch sales deployment in 2014 and 2015, with sessions being held in Paris, Madrid, Eindhoven for the French, Iberian (Spanish and Portuguese) and DACH (German speaking) plus Benelux country markets;
i) Documentation, contractual records and hard evidence to support back-tracing historical analysis of managerial decision-making processes.

At the level of secondary research materials and "objects", the extensive archive of available research assets for this PhD study on city.people.light will include a combination of both publicly circulated editorial products as well as internal organizational documentation (the latter being adopted for example as reference for the "process" backtracing 2010 – 2011 as presented above). For both the 2006-2007 and 2011–2014 European cycle recordings of visual and video nature will be available as complementary assets to personal insights and direct observations by the PhD researcher, as gathered in his own leadership/consulting capacity during the process. More focused scope, as detailed at a later stage of this chapter, will characterize the specific "research objects", namely the 2007 and 2014 books as "communication" and the 2006 and 2011–2013 research processes as the "creation" of the scenarios and concepts (Central Phenomenon).

5.5.2) Primary Research: Field Methods – Expert Interviews

The above paragraph provided a first overview of the general context and the specific objects (products, processes) at the center of primary empirical research, complemented by the preliminary elements elaborated on the specific role of technology, as anticipated in Section I and sketched in the introduction of this chapter. The detailing of the actual core of primary research is necessary to establish a methodological foundation for the next section. The ultimate goal of primary research procedures in this PhD is to achieve "theoretical saturation" and extract those insights that will determine an understanding of the "Central Phenomenon" under investigation, in order to address and answer the Key Research Question. These findings will be increasingly articulated in narratives, to be consolidated in preliminary "thick descriptions". In order to achieve this objective Grounded Theory will guide the research process. However, it will not be the only method given the mixed-method choice made; the *"bricolage"* mix of methodological approaches.

As a starting point, at the methodological level, it might be reiterated how this PhD study takes into careful account research protocols, assuming Grounded Theory and primary research interviews as *"primus inter pares"* among all available forms of data and deliverables at disposal in the *"bricolage"* of methods supporting the research. This means that interviews were designed, performed and leveraged as key moments of meaning-making in the PhD workflow. However, this was chosen not disregarding the role of all other assets and materials available for analysis, with one final ambition: *"Using […] data to construct abstract analytic categories through an iterative process"* (Charmaz, 2014, p.15). As the outcome of the above purposely planned and executed dialogs with key stakeholders and referred experts: *"Rich data are detailed, focused, and full. They reveal participants' views, feelings, intentions, and actions as well as the contexts and structures… Obtaining rich data means seeking* "thick description" (Geertz, 1973, quoted in: Charmaz, 2014, p.23). Rich data will indeed be the research backbone and the enabling condition to achieve "thick descriptions". Rich data represent an indirect research benefit of the peculiar, if not unique, conditions characterizing this PhD study in terms of dual capacity of its author; both academic researcher and consulting principal at the same time. Complementary to this mission-critical volume of secondary research assets and sources, the "bricolage" approach also comprises the design and execution of primary research, in the form of qualitative interviews with qualified respondents, functional to generating theoretical propositions.

5.5.2.1) Primary Research Design: Purposive Sampling

In order to achieve the latter ambition, as formulated by Charmaz, the challenge of establishing how the sample can be validated as complete and sufficient emerged during the design and execution of the PhD research project. Such a challenge is complicated by the hybrid nature of the approach. Where, primary data collection are complemented by extensive availability of extant materials and personal recollections. In this perspective the following statement fully applies to the selection of experts involved in the research: "*Guidelines for determining non-probabilistic sample sizes are virtually nonexistent. Purposive samples are the most commonly used form of non-probabilistic sampling, and their size typically relies on the concept of "saturation," or the point at which no new information… are observed in the data. Although the idea of saturation is helpful at the conceptual level, it provides little practical guidance for estimating sample sizes, prior to data collection, necessary for conducting quality research…"* (Guest,

Bunce, Johnson, 2006, 59). Guest, Bunce, Johnson (2006, pp.60-61) conducted an extensive bibliographic review on 24 sources, plus seven databases, looking for such guidance, in terms of actual guidelines, including references by Morse (1995), Bernard (1995), Trotter, Schensul (1998), concluding: "*Equally striking […] …no description of how saturation might be determined and no practical guidelines for estimating sample sizes for purposively sampled interviews…"* (Guest, Bunce, Johnson, 2006, 60). The key finding by the authors, referred to Miles, Hubermann (1994) is: "*The most commonly used samples, particularly in applied research, are purposive"* (Guest, Bunce, Johnson, 2006, p.61). *"Purposive sampling"* is therefore the approach selected for the primary research component of this PhD, as defined according to the recurrent element identified by Patton (2000): *"…participants are selected according to predetermined criteria relevant to a particular research objective"* (Guest, Bunce, Johnson, 2006, p.61). The purpose of this sampling is to reach "theoretical saturation", however; "*Waiting to reach saturation in the field is generally not an option. Applied researchers are often stuck with carrying out the number of interviews they prescribe in a proposal, for better or worse. A general yardstick is needed, therefore, to estimate the point at which saturation is likely to occur".* (Guest, Bunce, Johnson, 2006, 61). This very same statement applies to both the actual city.people.light interview cycles, at the basis of the city.people.light 2006 (15 participants) and 2011 (6 participants) – 2013 (2 additional participants) programs, as well to the present PhD study, and its primary qualitative data-gathering component. Guest, Bunce, Johnson (2006, 61) refer to various authors and scholars in terms of their extensive bibliographic review: Johnson (1990), Trotter (1991), Miles, Huberman (1994), Bernard (1995), Morse (1995), Rubin, Rubin (1995) Flick (1998), LeCompte, Schensul (1999), LeCompte (1999), Patton (2002), Bernard (2000), Bertaux (1981); Morse (1994), Creswell (1998). When it comes to Grounded Theory studies Morse and Creswell respectively indicate thirty-five and twenty to thirty-five participants as the standard minimum to reach theoretical saturation (Guest, Bunce, Johnson, 2006, 61). Even further, perhaps more relevant for the context of this PhD study: *"Kuzel (1992:41) tied his recommendation to sample heterogeneity and research objectives, recommending six to eight interviews for a homogeneous sample and twelve to twenty data sources "when looking for disconfirming evidence or trying to achieve maximum variation."* (Guest, Bunce, Johnson 2006, p.61). No final objective validation or justification (e.g. a general and repeatable "rule" in the positivist sense), were however identified in any of the sources. Hence, leaving the challenge open and any solution ultimately debatable Guest, Bunce, Johnson (2006, p.61-62).

The *"non-probabilistic, purposive sampling"* criteria in the case of this PhD project is related to the individual professional and personal insights in city.people.light programs, projects and approach in general, as based on the proven track record of experiences and interests. Selection criteria for the sample were set as including: a) all participants had a past or present professional role and/or personal interest that involved an active or passive understanding of city.people.light; b) all participants had been exposed to either the products or processes generated through the city.people.light approach, sometimes having witnessed ancillary projects as well; c) no invited interviewee was in the position to exercise any contractual or formal direct censorship, based on any conflict of interest of the PhD researcher in his consulting activities at the time of the interview. The participant selection covered professional stakeholders involved with city.people.light programs since 1996, across the span of activities that enabled the publication of a first book in 1997. Not to be covered by this research, yet to understand roots and history of the program, to follow up with the 2006/2007 global edition and the 2011/2014 European program *"Create the Livable City"*, or the specific objects of this PhD enquiry. The short

list of 13 respondents for this round of semi-structured, open-ended interviews, integrated with the bibliographic sources (Chapters 1 through 4) and the secondary research assets, included:

a) Dr. Stefano Marzano, (Italian national, resident in Sweden / The Netherlands), Chief Design Officer, Electrolux, at the moment of the interview and former Chief Executive Officer and Chief Creative Director, Philips Design, 1991 – 2001, who was instrumental to connecting the experiences and thought leadership at the Domus Academy in Milan with the Philips design processes through High Design (telephone interview);
b) Tapio Rosenius, (Finnish national, resident in Spain), MSc, Founder of Lighting Design Collective in Madrid, Helsinki and London, and key contributor to *"Create the Livable City"* 2011 – 2014, also as co-author of the related book (Skype interview);
c) Rogier van der Heide, (Dutch national, resident in The Netherlands), MSc, Chief Design Officer of Philips Lighting, 2010 – 2014 at the moment of the interview, and formerly Head of Lighting Design at ARUP, Amsterdam, who experienced the first city.people.light events in 1996 (face to face interview);
d) Rik van Stiphout, (Dutch national, resident in The Netherlands), Programme Advisor Light & Culture, City of Eindhoven, who contributed to city.people.light 2006 workshops and 2007 launch event in Rotterdam, and who facilitated the commission of the Strijp lighting experience strategy in 2008 to be assigned to Philips Design (face to face interview);
e) Lorna Goulden, MBA, (UK national, resident in The Netherlands), Director, Creative Innovation Works BV, Eindhoven, and formerly Design Director, Philips Design, who performed the leadership task on the 2008 Strijp lighting experience strategy, including the authorship of related publications (face to face interview);
f) Oscar Pena, (UK national, resident in London), formerly Global Creative Director, Philips Lighting, who was involved with early High Design projects and programs, and is currently responsible for all product design propositions developed worldwide by Philips Lighting (face to face interview);
g) Kristin Bredal, (Norwegian national, resident in Norway), Founder, Zenisk, Oslo, who partook the Copenhagen workshop of *"Create the Livable City"* in January 2012 and adopted the urban futures approach there presented in her design firm, with stated impact in her projects and deliverables, (Stavenger lighting masterplan case) (Skype interview);
h) Nils Hansen, (German national, resident in The Netherlands), Sr. Marketing Manager Sports&Area PLS Europe, formerly Senior Manager Marketing Communication EMEA, Philips Lighting, who was a key instrumental party in the creation and execution of *"Create the Livable City"* activities until his promotion, between 2010 and 2012 (face to face interview);
i) Laura Taylor, (UK national, resident in The Netherlands), Creative Lead Innovation, Philips Lighting, a veteran of the design department at Philips with more than 20 years of service, who contributed to the promotional and profiling activities around the first city.people.light 1996 program, with particular focus on the related event (face to face interview);
j) Jasmine van der Pol, (Dutch national, resident in Denmark), Lighting Designer, AF Lighting Copenhagen, formerly Lighting Application Specialist, Philips Lighting, Miribel (France), who contributed by supporting selected city.people.light global workshops in 2006 and acting as lighting design expert on selected *"Create the Livable City"* workshops in 2011 – 2012, prior to her

relocation to Copenhagen (Skype interview);

k) Dorota Slawinska, (Polish national, resident in Poland), Marketing Communication Manager, Philips Lighting Poland S.A., Warsaw, who was instrumental in the creation and execution of the 2012 Polish national program, "Architects of Light", modeled on city.people.light principles and fully compatible with *"Create the Livable City"*, to the point that one of the 2012 Polish workshops, in Wroclaw, could be fully adopted and seamlessly integrated in the final *"Create the Livable City"* 2014 book as one of the six European reference cases (Skype interview);
l) Fernand Pereira, (French national, resident in France), Head of LIAS/Specifiers, Philips Lighting, Lyon, who acted as main commissioner from Philips Lighting side in 2006 for the city.people.light global program and as co-author of the related book (face to face interview);
m) Jos Stuyfzand, (Dutch national, resident in The Netherlands), Senior Creative Director, Philips Design, currently in charge of all Ambient Experience design initiatives, including projects in hospitals and airports, for a decade Account Director Lighting within Philips Design and acting in such role during the 1996 first global city.people.light research program (face to face interview).

Further information about the relationship between each interviewee and the PhD researcher is included in Chapter 10. There, additional anecdotes and biographic notes will be available and might be consulted by accessing directly the chapter before reading Section III, in case of specific interest. The reason why such biographic materials are postponed to Chapter 10 lies in their specific reflexive nature, demanding, in light of the methodological and editorial choices made by the PhD researcher, a separate and specific treatment. In this line of approach, all across this methodological chapter reference was repeatedly and solidly made to the necessity of specific research practice to be expressed by the researcher in the context of this PhD study. This resulted in both specific methodological choices, in line with the postmodern paradigm, and with the aforementioned theories by DeCerteau, Giddens and Greimas, as well as an operational response to the challenges of his double role, where a tension can be detected between the consulting leadership as research principal of city.people.light programs since 2006 versus the independent academic task of critically analyzing to achieve theory development. In the light of such complexities, for Chapter 10 "popularized ethnography" with a strong narrative approach, as based on what adopted by Sarah Thornton in her reader-friendly, mass market distributed *"Seven Days in the Art World"* (2008), was identified as ancillary methodological reference for dedicated reflexive considerations. Also in consideration of the same "insider role" mechanism, devised by Thornton for the research behind that book, while the lead role of methodological reference was assigned to Grounded Theory, as defined in 1967 by Glauber and Strauss, and then revisited in 2014 by Charmaz to align it with contemporary postmodern and feminist research paradigms, in view of the exhausted pressure from the 1960's drive to rationalize sociology as a statistically based science, with critical realism and case study approach playing ancillary epistemological and methodological roles. On this methodological basis, Chapter 10 required to have its specific editorial position, at later stage in this PhD manuscript, as well as its specific analytical perspective, making it inappropriate to directly connect it to the above introductory short list in this Chapter 5.

The interviews were performed in the period October 2013–December 2013, with an equivalent and balanced, yet personalized, questionnaire for each respondent. As based on the insight that narratives might emerge as reflected in *"social roles"* (Creswell, 2013,

pp.148 – 149), hence requiring flexibility, fluidity and personalization in each dialog. Taking into account all circumstances above the total amount of interviews was set at thirteen (13) units. In line with the following statement, to be further discussed and demonstrated below: "*If the goal is to describe a shared perception, belief, or behavior among a relatively homogeneous group, then a sample of twelve will likely be sufficient, as it was in our study"* (Guest, Bunce, Johnson, 2006, 76). This total amount of interviews covers the range of potential saturation identified by Guest, Bunce, Johnson (2006, p.74) in their study on the ambiguity of "theoretical saturation". In their specific experiment these scholars validated that twelve (12) interviews in one country were sufficient to identify the 88% of the total number of "codes" defined in a two country study, raising to 92% of same country codes. With a substantial second wave of complex teamwork, these codes, extracted from the first twelve interviews, proved relatively solid, with only marginal granularity added and, most importantly, with progressive diminishing return in terms of additional texturing in the next generation coding. For example, this was further formalized in the specific context of "Consensus Theory" in the scientific community: "*…small samples can be quite sufficient in providing complete and accurate information within a particular cultural context, as long as the participants possess a certain degree of expertise about the domain of inquiry ("cultural competence"). … samples as small as four individuals can render extremely accurate information with a high confidence level […] if they possess a high degree of competence for the domain of inquiry"* (Guest, Bunce, Johnson, 2006, p.74). It must also be reported how such a reference does not optimally fit with the constructivist episteme; *"While consensus theory uses structured questions and deals with knowledge, rather than experiences and perceptions per se, its assumptions and estimates are still relevant to open-ended questions that deal with perceptions and beliefs. The first assumption of the theory is that an external truth exists in the domain being studied, that there is a reality out there that individuals experience".* (Guest, Bunce, Johnson, 2006, p.75). Factoring these epistemic suboptimal alignment and, although the authors themselves indicate that such findings might not be generalizable, given the relative lack of falsifiable exactitude of references for this specific aspect of qualitative research it was considered as acceptable to dimension the sample accordingly. Hence, opting for the thirteen (13) participants in total to be considered as "homogenous population", with a medium to high degree of "cultural competence" and full proficiency about the topic of city.people.light from the viewpoints of history, context, structural moments, practices and personal commitments and interests. Also two additional conditions were met in the further data processing: "*The second and third assumptions within the consensus model are that participants answer independently of one another and that the questions asked comprise a coherent domain of knowledge. The former assumption can be met by ensuring that participants are interviewed independently and in private. The latter assumption can be achieved by analyzing data collected from a given instrument compartmentally, by domain".* (Guest, Bunce, Johnson, 2006, p.75). From this viewpoint, interviews were indeed conducted as separate and independent dialogs, with the only exception of intra-panel references made by participants at their discretion. Whilst coding was indeed performed according to three separate categories, or domains: history and context of city.people.light (1996-1997 and ancillary projects), products (1997 and 2014 books) and process (2006 and 2011–2013 organizational and workshop management). Furthermore, this operational choice of limiting the amount of interviews appeared to be justifiable because this empirical study was not the sole data source but one module in the much larger context of a mixed method approach. Where, the great quantity and high quality of secondary sources and extant materials will offer additional empirical research assets to compensate the relatively lower number of interviews.

5.5.2.2) Primary Research Design: interview item list

In terms of characterization of the individual contributors of the sample, in order to enable a contextual and historical study of the research objects, a mix was identified between experts who were directly and deeply involved with, and instrumental for, city.people.light 2006-2007 and 2011–2014 programs (Hansen, Van der Pol, Pereira of Philips, and Rosenius, Van Stiphout, Bredal as externals) and experts who were either marginally involved with the "research objects" or, not being involved at all, were instrumental for the 1996–1997 first global program or for ancillary and related projects or roles are worth considering for a proper understanding of the "Central Phenomenon" (Marzano, Van der Heide, Goulden, Pena, Taylor, Slawinska, Stuyfzand, all of Philips). Three experts were both key for the 1996 – 1997 definition of the city.people.light platform, as well as secondarily involved with the communication and creation of the scenarios and concepts at the center of the research (Marzano, Van der Heide, Slawinska). Hence, constituting an added integrating factor across the panel. According to Kuzel (1992) as quoted in Guest, Bunce, Johnson (2006, 61), one might interpret the panel segmentation as follows: six (6) interviewees for the homogenous sample of directly involved participants, plus three indirectly involved (3) for a total of nine (9) experts who had a direct role or a somehow direct experience of city.people.light 2006–2007 and/or *"Create the Livable City"* 2011–2014 (with the actual optimal target set in the same paper of; 6 to 8 interviewees) and seven interviewees involved with the purpose to provide history and context. Further than justifying the sampling criteria it is indispensable to qualify the sample. By specifying that all participants were past professional colleagues, peers or customers of the PhD researcher. As indicated above, further information of reflexive nature is available for consultation in Chapter 10, in case of any required foreshadowing on the existing relationships between PhD researcher and interviewed experts. As anticipated above, and as required, it must be reiterated that no conflict of interest or specific business contractual commitment existed with any of the respondents at the time of interviewing. Each expert had (had) a specific role in the city.people.light history or development that was well known to the PhD researcher prior to selecting the individual participants. Individual preferences, biographies or professional backgrounds were connected to the interview focus by means of flexibility in leveraging the below listed selection of topics. This first moment of dialog was envisioned in its respondent selection and designed in its questionnaire format as a "canvas", as a key opportunity to gather the following scope of information about general city.people.light history (1995–2013). Context and conditions, in accordance to the research problem, and the Central Phenomenon as identified above, including:

a) background information on the respondent;
b) questions about city.people.light program design and goals, excluding sales
c) questions about commercial relationships versus community management;
d) questions about technological innovation aspects, limited to marketed solutions;
e) questions about knowledge management processes;
f) questions about co-creation processes and aspects;
g) questions about Design Thinking and specific design practices;
h) open questions for any spontaneous statements from the respondent.

Conversations were conducted on the basis of a general line of dialog (here referred to as the canvas connecting the points above) that was used to coherently semi-structure informal dialogs with each expert. The concrete execution of each interview was based on a general overview of topical points, adapted to the respondent in terms of their

expertise, experience and practice. The tone of voice and the professional reference was maintained in line with the journalistic background of the research candidate, as adopted and adapted for research purposes (Bevolo, 2009, 16 through 18). This batch of 13 interviews was conceived, executed and processed by the PhD researcher, with assistance limited to the transcript verbatim of the recorded conversations.

At relationship management level all respondents were offered the opportunity to review their individual transcript. With the faculty to erase specific words, sentences or paragraphs, if they deemed anything as not appropriate, for fully attributed disclosure. Respondents were however not granted the opportunity to change any content, inflections or even minor grammar mistakes in their statements. The latter therefore represent the precise transcription of recorded answers, of course excluding any requested "OMISSIS", made explicit in the flow of the text. This is because the materials authorized and published in the final transcripts were expected to maintain and offer further analysis; all qualities at all levels of the "live" conversations that took place on occasion of the interview. Such "fidelity" in the reproduction included allocutions, breaks, suspensions and similar imperfections of any spoken conversation that are considered as valid materials for enquiry within this PhD study as formal documents or published editorial products.

5.6) VALIDITY, EVALUATION AND LIMITATING CONDITIONS

It must be duly anticipated that the ambition to address the tensions outlined in Chapter 4 (1.humanities versus sciences; 2.individual versus collective forecasting; 3.social sciences versus design) will never deliver according to the standards of scientific falsifiability or technocratic repeatability. However, a disciplined application of constructivist Grounded Theory principles to the analysis of the Central Phenomenon will result in additional opportunities for theoretical elaboration, as based on the view by Lash of European sociology making a distinction between simple and reflexive modernity (Lash, 1999, p.3): *"In reflexive judgment, even when we find the rule, the particular cannot be subsumed under the universal"* (Lash, 1999, p.3). It must be, therefore, first and foremost reiterated in this paragraph that no positivist outcome should be expected from the present study, especially in terms of positivist validity and evaluation.

At the same time a significant number of criteria and methods to ensure validity and reliability, or in a constructivist sense "transparency", to qualitative research projects have been identified through the years. From trying to parallel quantitative research (LeCompte & Goetz, 1982, quoted in: Creswell, 2013, p.244) to primary criteria, such as credibility, authenticity, criticality and integrity, versus secondary criteria like creativity or congruence (Whittemore, Chase & Mandle, 2001, quoted in: Creswell, 2013, p.245). As an essential reference for this PhD study is the notion of "validation" as a process (Angen, 2000, quoted in: Creswell, 2013, p.250), as opposite to more static notions like "verification" or "authenticity". Regarding validation as a process, a number of procedural strategies are available to researchers in order to perform necessary steps validating research findings, including (Creswell, 2013, pp.250 - 251 – 252):

a) Prolonged engagement and persistent observation in the research field;
b) Triangulation of multiple sources, methods, theories, to corroborate evidence;
c) Peer review and debriefing, with reviewers playing the role of "devil's advocate";
d) Taking on board discontinuities and rationalizing counterproof;

e) Clarifying researcher's bias in reflexive terms;
f) Participants' feedback at intermediate stages of the project;
g) Thick description, with "abundant, interconnected details" enriching the texture of research reporting;
h) External audits, with an auditor assessing the process quality at a given time.

This is how this PhD study did benefit from the various validation strategies above:

a) The researcher has been fully immersed in the field since 1999, and when it comes to city.people.light since 2006, with direct participation to programs and product creation. Hence, having the opportunity to observe both managerial and network management processes first hand, from start to finish and afterwards;
b) Multiple sources in the form of primary research interviews, products, documents, reflexive observations of both verbal and visual nature, recorded in official form or informally captured, have been listed above. Demonstrating the richness of sourcing to the point of methodologically challenging the researcher;
c) Peer review has been ensured by the collateral contribution of non-appointed professionals who maintain a constant dialog and informal exchange with the PhD researcher. At this moment including: Dr. M. De Brito, NHTV University of Applied Sciences; Mr. Jaap van der Linden, Philips Lighting BV; at an earlier phase, Dr. Hugo van der Poel, formerly at NHTV and UvT, who was associated to the project as co-promotor; these discussions helped to orientate and re-focus the research process on specific points, when facing roadblocks;
d) Negative case analysis was considered but not applicable;
e) It has been already elaborated how a specific chapter will be dedicated to the reflexivity aspects and challenges of this project versus the "insider" role of the PhD researcher, according to ethnography methodological principles. For this reason, responding to the required presence of a strong reflexive component, additional information about the relationships between interviewed experts and the PhD research was postponed to Chapter 10, with a different editorial treatment;
f) Feedback from participants was not explicitly planned, however informal dialogs partially tested hypotheses with additional key stakeholders of city.people.light programs and derived projects, somehow covering this validation strategy, although only to some extent and not sufficiently for formal purposes;
g) "Thick description" was adopted as a narrative and editorial strategy, to report details of city.people.light programs and projects. The availability of this abundant amount of documents, deliverables and reflexive observations did enable this approach in terms of content granularity, while "zooming into" specific cases and details in the city.people.light programs was one of the creative writing tools substantiating this approach;
h) An external audit role was played by the official promotors and co-promotor of this PhD study: Prof. Dr. Ir. H. Mommaas, UvT; Prof. J. Rijsman, UvT; Dr. P. Bishop, University of Houston, TX, who did receive and review work in progress in real time to confirm the final quality standards for promotion of the PhD thesis; additionally, the review by the doctoral commission at the end of the process will represent an equivalent task as the "fiscal audit" referred as analogy for this validation strategy (Creswell, 2013, 252).

Although the above short list represents more a "miniscan" than an exhaustive methodological review, its basis as elaborated by Creswell, 2013, combined at the

source several references and authors, while in this synthesis it is already feasible to establish the robust nature of this PhD study from a validation process and process validation perspectives. Taking into account that Creswell himself recommends a minimum of two validation strategies to be pursued and enacted by the researcher (Creswell, 2013, p.253), a reference parameter that, however arbitrarily prescribed, is herewith abundantly fulfilled and exceeded. Of course, the ultimate question, just as in the creative industry sectors like advertising or design, it is always in the proof of the pudding that this PhD study will have to sustain against the most challenging parameter of them all, perhaps, relevance: *"The "So, what?" question signals that defeat can still be snatched from the jaws of victory. This question implies that your audience has no fundamental quibbles with your methodology, research, and theoretical innovations but wonders whether the entire endeavor is worth the effort"* (Tavory, Timmermans, 2014, 115).

In terms of evaluation criteria, these can be captured and commented in five essential points (Creswell, 2013, p.255), here already matched against the research strategies adopted in the context of this PhD study:

a) The research questions must drive data collection: in this PhD study case, this parameter should be discussed in the light of postmodern approaches to Grounded Theory. Where the accent goes on flexibility and adaptability of the researcher as findings emerge, whilst taking into account the important quantity and quality of existing assets as available and extracted from the city.people.light programs and projects;

b) Data collection must be performed according to criteria of technical competence: the methodologies outlined in this chapter represent the technical specifications that secure the competent design and execution by sufficient and robust validation protocols. Furthermore, on the specific size of purposive sample, a methodological review was performed, assessing the sufficiency of research design solutions: "*Purposive samples still need to be carefully selected, and twelve interviews will likely not be enough if a selected group is relatively heterogeneous, the data quality is poor, and the domain of inquiry is diffuse and/or vague. Likewise, you will need larger samples if your goal is to assess variation between distinct groups or correlation among variables. For most research enterprises, however, in which the aim is to understand common perceptions and experiences among a group of relatively homogeneous individuals, twelve interviews should suffice* (Guest, Bunce, Johnson, 2006, p.79). As the expert group involved was homogenous (business and/or design management with past involvement in city.people.light programs), the data was systematically retrieved by means of constant reference to a unified item list and the domain of enquiry was focused on city.people.light and related references. One might assess that the goal to enable understanding of "common perceptions and experiences" was achieved with the selected sample of thirteen individuals;

c) Reflexivity: this parameter was already demonstrated in several aforementioned paragraphs. With particular reference to both the specific ethnographic chapter to be generated for this purpose, as Chapter 10 of this manuscript, and the general epistemic foundation of postmodern Grounded Theory;

d) Theoretical Robustness: this parameter was already demonstrated in the

aforementioned chapters 1 through 3, and with the hybrid theoretical-anecdotal alignment of Chapter 4. Plus the prospective emerging theories from the Grounded Theory approach selected as leading organizing principle of the study;

e) Value in informing and improving the practice, while protecting confidentiality and privacy: on the first point of this parameter, there appears to be a possible ideal synergy between understanding city.people.light as an applied research process, by means of theoretical validation, and improving the general domains of futures research, design and urban studies by formalizing emerging theories that can address the potential role of design in the creation of urban scenarios. For the second part of the parameters, while all contractual and legal aspects intrinsic to city.people.light programs remain binding, from the veto on directly quoting interviewed experts (in 2006 and 2011, for the global and European programs) to the confidentiality of quantified financial information and commercial roadmaps, the PhD primary research interviews specifically conducted for this project were designed and managed to enable direct quotes with attributed statements.

To summarize, it is herewith proposed that the present PhD study does achieve its impact by substantively contributing to the understanding of scenario creation by connecting socio-cultural foresight, design and urban studies. Hence, providing a new window to interpret and decode urban futures; from the perspective role played by "design" in related processes of communication and creation. The PhD study was performed according to standards of academic writing and editorial appropriateness, yet adopting narrative, storytelling and aesthetic solutions positively impacting and motivating the reader. Finally, the reflexivity aspect will be central to the design, execution and reflection in the next chapters where data analysis will be core.

A number of limiting conditions might be identified, from limited existence of any official archives at Philips Lighting/Philips Design. With particular focus on the 2006 research assets, due to company storage policies, to the actual challenges of interviewing a number of stakeholders directly involved in the actual benefits derived from the program at professional level, from marketing communication to strategy and innovation viewpoints. However, what is perhaps the most critical limiting condition paradoxically lies in the very enabling factor of this PhD study, and it is namely the professional intimacy of the PhD researcher with the city.people.light approach as forthcoming his scientific quest to validate it. Since 2006, city.people.light played a variable but increasingly determining relevance in the professional and personal life of the PhD researcher, therefore he could gain access to unique insight in a sort of "undercover status" as academic researcher. At the same time, his leadership and ambassadorship roles related to the approach through almost a decade, resulted in his affiliation to Philips to extend well beyond his corporate employment status. Maintaining consulting, commercial and content ties with the context and challenges of developing this platform from its 2006 global edition to the more applied, more sales support focused European edition of 2011–2014. There is therefore a key tension here, where mission-critical opportunities of deep insights and critical examination of past practices from within meet past affiliation and current stewardship. Once again, the answer to the riddle presented by this unique opportunity and its counterbalancing limiting condition is to break through the noise of applied practices and avoid the abstract nature of pure academicism, opting instead for a robust, solid and transparent reflexive discipline and research praxis.

CONCLUSIVE NOTE

The above framework is the professional and epistemological springboard, but also reflexively existential, against which methodological choices for this specific part of the study were made; leading to a dedicated Chapter 10 based on reflexive ethnography. The notion of “thick description” as outcome of “rich data” gathering, enabled by the double role herewith discussed, did return under the methodological lens of this chapter at a later stage. The identification of an original constructivist framework that might unify and connect the different fields of practice at play beyond the existing, yet partial, theories of futures research, design and urban matters, including the role of social networks is yet another challenge faced before starting this chapter. The resulting canvas is rich in variety and deep in texture. In particular, the methodological strategy represents the real cornerstone of the whole PhD study. Leading to the opportunity to frame city.people.light as an approach in major futures research, design and urban studies streams of theoretical nature. This review and the subsequent awareness that theoretical development was required to explain and rationalize city.people.light as a design approach to urban futures, resulted in a complete yet clear statement of purpose overarching the entire PhD study. Complete with the formal identification of the Central Phenomenon:

““The Central Phenomenon is identified as the research-based process of creation and subsequent communication (through editorial products) of scenarios and concepts in postmodern times (with the initial claim that city.people.light is an application of the High Design approach, the latter being a specific proprietary people-focused, future oriented, design management process by Philips). The purpose of this mixed-method PhD study is to understand and describe the role of "design" in the generation of "urban futures" scenarios and concepts (namely, visions and visualizations) and their subsequent communication, with focus on specific “research objects” (products and processes) related to city.people.light programs between 2006 and 2014”.

Departing from such elaborated statement a short list of key assets to be adopted as secondary objects of research, including books, documents, transcripts, presentations, visual sketches, informal memos by the researcher in his capacity of city.people.light “insider”, video recordings of workshops and more was identified and introduced to provide clarity to the reader about key milestones in examining the “products” and the “processes” of city.people.light. As anticipated in the introduction this chapter represents the overarching methodological foundation of this PhD. Nevertheless, a number of procedures or tools specified in this chapter will not be deployed in the further Chapters 6, 7, 8 but at a later stage in the PhD, e.g. the theoretical tensions, converted in Sensitizing Concepts, will be only activated in Chapter 9, as part of the Conclusions. Operational procedures as coding and generative formats of empirical research data processing will be extensively clarified in the substantial introduction to the next Section III, comprising three chapters dedicated to context and history, product and process of city.people.light. Grounded Theory was therefore described in its key operational milestones and purposes, with the peculiar focus to contextualize a first wave of primary research interviews, conducted in the second half of 2013 and analyzed at preliminary level by exposing their transcripts to pre-existing Prefigured Codes (derived from the theoretical chapters 1 through 4 and from the Interview Item List), in line with the indications of Charmaz. In the Introduction to the next Section III, the methodological lines sketched above will be activated for the analytical purpose of empirical data processing by coding, which will be central in Chapters 6, 7 and 8.

SECTION III
EMPIRICAL ANALYSIS

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EMPIRICAL ANALYSIS

CODING: NAVIGATOR

For the best comfort of the reader, in consideration of both the analytical and editorial "thickness" of the following Chapters 6, 7, 8 and 9 in articulating the various strata and steps of coding, and the procedures that justify their methodological validity, a number of introductory tools are herewith provided as a means of orientation and further navigation:

- the Coding Glossary provides a shortlist of the coding necessary items to understand the procedures, with due definition to describe each of them;

- the Coding Process provides an overview of steps that were performed in actuating the coding procedures, with due sequencing to position each of them according to their specific moment and function;

- the Coding Editorial Sequence provides additional information on where each single individual step will be editorially positioned in the manuscript, either in this Empirical Section III (Chapters 6, 7, 8 plus ancillary text) or in the Conclusions (Chapter 9);

- the Disambiguation provides specification of multiple interpretations and meaning that the words "Theme", Storyline" and "Proposition" do carry in different points of the manuscript, as it was exceptionally not feasible to assign them one content reference only.

The four items combined form an overview that might be constantly referred to by the reader, in the process of exploring this Section III and the Conclusions. At specific points of the manuscript, they will be recalled with a recommendation to consult them. In operational terms, extracts from the primary qualitative interviews were firstly reviewed and analyzed in these major semantic units, with the purpose to reflexively manage and maintain, as unaltered and intact as possible, the content and tone of voice of the actual conversations. From this first review of textual "macro-units", a second layer of cross-referencing coding was performed, selecting shorter samples with coherence and continuity, with the purpose to enable the emergence of consistently coded content clusters. This resulted in the passage from a number of categories originally based on theory and on the item list (identified above as "Prefigured Codes"), to a number of textual fragments clustered according to topical motive (identified as "Open Code") required attention to prevent mirroring presented theory. This was chosen in order to reflexively prevent any risk of such self-fulfilling prophecy. "Open Codes" were further analyzed and given ultimate synthesis in newly designed "Generative Subcategories", to be further articulated into "Generative Propositions". From this point onwards, relationship with the primary quotes is indirect (because textual materials were drafted by the PhD researcher).

This Navigator was not designed for the purpose to stand for or replace the Section III introductory paragraphst hat follow before Chapter 6, therefore reading thereof is considered necessary to achieve full understanding of the coding process and of how Chapter 5 methodological principles and theories are activated.

CODING GLOSSARY

Prefigured Codes: Item List-based and referred to the theoretical Chapters 1 through 4 parameters, or pre-existing codes, leveraged to fragment transcripts into empirical primary data clusters, and such textual clusters.

Open Codes: selected empirical textual materials, within Prefigured Codes, resulting in synthetic textual fragments (coherently identified by keywords, and an order number), clustered in Generative Subcategories (clusters of Open Codes "keywords only" on the basis of semantic affinity).

Generative Propositions: intermediate textual materials in the present tense, abductively developed from Generative Subcategories, standing between primary data and Grounded Theory.

Key Generative Category: one keyword summarizing the central reference for axial coding (e.g., "Book" for Product, "Workshop" for process) and making it actionable.

Themes: one-liners (headline titles) developed through Axial Coding, distinctively capturing the essence of Design, Book, Workshop within History / Context, Product, Process, separately based on Causal Conditions, Strategies, Context, Consequences.

Selective Coding Storylines: Theme-driven aggregations of Generative Propositions, as selected from viewpoint of thematic priority and edited into a descriptive text.

Transitional Propositions (Collateral, Ancillary, Primary): outcome of the Co-Axial Confrontation, as written by merging History / Context, Product, Process, on the basis of Design-referenced Themes.

Primary Storylines: convergence of Primary Transitional Propositions, selected with reference to the semantic affinity with the keyword "Design".

Grounded Theory Cluster: final combination of Design-referenced Themes with Primary Transitional Propositions, as filtered through Sensitizing Concepts and editorially sequenced.

Answers to Key Research Question: synthetic points as extracted from the Grounded Theory Cluster, to directly respond to the Key Research Question.

CODING PROCESS

PREFIGURED CODING: textual fragmentation of transcript quotes according to 19 theoretically referred, Item List-derived codes (History / Context, Product, Process).

OPEN CODING Step 1: textual selection within Prefigured Codes textual materials of semantically relevant and coherent segments, to be identified by a sequence number and a specific Open Code (History / Context, Product, Process).

OPEN CODING Step 2: clustering of specific Open Codes "headlines" (one to three keywords only) by semantic affinity and synthesis, in Generative Subcategories (History / Context, Product, Process).

OPEN CODING Step 3: creation of Generative Propositions to articulate Generative Subcategories (History / Context, Product, Process).

AXIAL CODING: mapping of Generative Propositions according to one specific Key Axial Category ("Design" for History/Context, "Book" for Product, "Workshop" for process) along four constituencies (Causal Conditions, Strategies, Context, Consequences), in order to generate Themes (History / Context, Product, Process).

SELECTIVE CODING: aggregation of Generative Propositions clustered by Themes along axis, resulting in Storylines (History / Context, Product, Process).

CROSS-AXIAL CONFRONTATION: axis-focused (axis=one keyword: "Design") clustering, in order to re-aggregate Generative Propositions from Three Streams (History / Context, Product, Process) into One Stream: a) Design-referenced Themes and b) Transitional Propositions (Collateral, Ancillary, Primary);

SENSITIZING CONCEPTS: functional to selecting and filtering Transitional Propositions, in order to define building blocks for Design-referenced Primary Storylines;

GROUNDED THEORETICAL CLUSTERING: combining Designed-referenced Primary Storylines with Design-referenced Themes (from co-axial confrontation) to articulate key research findings.

KEY RESEARCH QUESTION: defining short list of answering points from the Grounded Theoretical Cluster.

CODING EDITORIAL SEQUENCE
Empirical Data: 13 Expert Interviews (Purposive Sampling) based on Item list

Section III, Chapters 6, 7, 8, plus Cross-Axial Confrontation
Three Coding Streams: 1) History / Context, 2) Product, 3) Process

First Step: Prefigured Coding (History / Context, Product, Process)
(based on Item List, in order to fragment transcripts)
Outcome: ***Prefigured Codes***, Appendix A

Second Step: Open Coding (History / Context, Product, Process)
(based on Prefigured Coding content, prioritized to generate Open Codes)
Outcome: ***Open Codes***, Chapters 6, 7, 8 and Appendix B

Third Step: Open Coding (History / Context, Product, Process)
(based on Open Codes, clustered to form *Generative Subcategories*)
Outcome: ***Generative Propositions***, Chapters 6, 7, 8, and Appendix C

Fourth Step: Axial Coding (History / Context, Product, Process)
a) Based on Generative Propositions.
b) Analyzed by mean of three Key Axial Categories; Design, Book, Workshop.
c) With constituencies; Causal Conditions, Strategies, Context, Consequences.
Outcome: ***Themes***, Chapters 6, 7, 8

Fifth Step: Selective Coding (History / Context, Product, Process)
(based on Generative Propositions, aggregated).
Outcome: ***Storylines***, Chapters 6, 7, 8

Sixth Step: Cross-Axial Confrontation, generating ***Design-referenced Themes, Transitional Propositions*** (Collateral, Ancillary, Primary) cross-referencing Axial Themes from Three Streams. Merging Three Streams into One (Design).

Section IV, Chapter 9
One post-coding stream: Design-focused

Seventh Step: Primary Storylines
(based on Transitional Propositions, filtered by Sensitizing Concepts)
Outcome: ***Design-referenced Primary Propositions***, Chapter 9

Eighth Step: Design-referenced Theoretical Grounded Cluster
(merging / editing Design Themes with Design-referenced Primary Storylines)
Outcome: ***Theoretical Grounded Cluster***, Chapter 9

Ninth Step: addressing Key Research Question
(by analyzing and fragmenting the Theoretical Grounded Cluster)
Outcome: short list of ***10 Key Research Answers***, Chapter 9

DISAMBIGUATION

1) DISAMBIGUATION: **THEME**

1.1 Theme (Coding Partial Deliverable)
A Theme is a mission-critical deliverable of Axial Coding as drafted by the PhD researcher, presented in the form of a key headline statement or sentence, in order to capture the coding outcome with maximum synthesis.

1.2 Brand Theme (Empirical Data Content)
As reported in expert interviews, a Brand Theme is a narrative motive that embodies brand values and articulates them, in order to channel them through media and marketing communication channels.

2) DISAMBIGUATION: **STORYLINES**

2.1 Prefigured Code - Product: 3.2 Storylines
(Narrative Practices, Para-scientific Structures) (Coding grid)
A Prefigured Code (derived from theoretical Chapters 1 through 4 and the item list execution), "Storylines" captures alternative narratives articulated in the "research objects" (2006 and 2014 books), describing a) city.people.light as a practice-oriented communication platform versus b) city.people.light as a structure-oriented platform for formal procedures.

2.2 Selective Coding Storylines (Coding Partial Deliverable)
Selective Coding Storylines are intermediate conclusive coding deliverables, as drafted by the PhD researcher, presented in the form of edited sequences of multiple statements, that separately provide overview of coding outcome for each of the three streams (History / Context, Product, Process).

2.3 Primary Storylines (Coding Final Deliverable)
As the last coding step before the Grounded Theoretical Cluster, Primary Storylines are unified (final) conclusive coding deliverables, as developed by the PhD researcher by editing the "Primary Transitional Propositions", in order to capture the "Design"-focused narrative sequences of statements, which provide unified overview of coding outcome for the entire PhD project.

2.4 Urban Storylines (Empirical Data Content)
Urban storylines are narrative manifestations that embody the vernacular values and character of a city, e.g. for marketing purposes. Lighting might trigger specific urban storylines.

3) DISAMBIGUATION: **PROPOSITION**

3.1 Generative Propositions
(Coding Intermediate Deliverable - Three Streams)
Divided according to History/Context, Product, Process, Generative Propositions are Open Coding final deliverables and as such, coding intermediate deliverables, drafted by the PhD researcher in the form of a statement or a sequence of statements in the present tense, articulating the essence of Generative Categories, the latter being formed by clusters of Open Codes.

3.2 Transitional Propositions
(Coding Intermediate Deliverable - Unified Stream)
Drafted after Cross-Axial Confrontation, Transitional Propositions are intermediate constructs aimed at enabling grounded theory development, and as such, overall coding pre-final deliverables (the last step before the Primary Storylines), drafted by the PhD researcher in the form of a statement or a sequence of statements in the present tense, articulating the essence of unified coding findings.

EMPIRICAL SECTION: INTRODUCTION

The empirical heart of this PhD project, comprising three chapters, epistemologically based on the methodologies presented in Chapter 5 and operationalized by this introduction, will be governed by the principles of Grounded Theory, as a leading approach in the chosen bricolage mixed method design. Firstly, in order to appreciate the consequences of this choice, Grounded Theory should be once again historically contextualized in the scientific and cultural climate of the late 1960's, when the creation and publication of this qualitative method had major impact; in equivalent lines as the philosophical and epistemological investigations by Thomas S. Kuhn (1962), as mentioned in Section I, and Aaron Cicourel (1964) (Charmaz, 2006, p.7), as reaction to pervasive positivism; *"Mid Century positivistic conceptions of scientific method and knowledge stressed objectivity, generality, replication of research and falsification of competing hypotheses and theories"* (Charmaz, 2006, 6). These principles were long translated into the epistemic foundation of social interpretation and into a key reference for cultural production, in line with Gergen's recent concerns (Gergen, 2014): *"The transformation of society is regarded as predominantly shaped by scientific and technical change. In other words, the socialization of science has been contingent on the scientification of society. There are now extended scientific communities and more urgent socio-scientific controversies because society as a whole has been permeated by science, although it is accepted that in the culture of science –autonomist, reductive, self-referential- has been transformed into something different: in Latour's phrase, a culture of research which is more populist, pluralistic and open"* (Nowotny, Scott, Gibbons, 2001, 3). In this line of evolution and revolution versus epistemic drivers of positivist nature, *"The Discovery of Grounded Theory"* (first edition in 1967) provided complementary yet distinctive, if not revolutionary response, asserting the intrinsic coherence and generative power of the qualitative competence of social sciences (Charmaz, 2006, 7). Coherence and generative power are both highly desirable in the context of this PhD study in order to counterbalance the risks of adopting mixed method and "insider" assets.

Historically, as reported at an earlier stage, rigid prescriptions were defined for coding as a protocol in Grounded Theory at a time when the approach required strong and firm reference points to emerge among a prevalence of quantitative methods leading in sociology and later on was critically reviewed from a postmodern, even feminist perspective (Charmaz, 2014, p.9). In response to such rigidity, making "a revolution" into yet another structure, the *"constructivist turn"* in the 1990's evolution of Grounded Theory almost represents a return to the origin of the 1967 statement and spirit. With its focus shifting back from coded rituals of research to an *"…inductive, comparative, emergent, and open-ended approach"* (Charmaz, 2006, p.12). This PhD did adopt such flexibility in the form of abductive selections being at the heart of coding. Such a choice in terms of research practice particularly applied to the first coding loops segmenting the entire universe of empirical data according to the theoretical intent captured, at the level of interview design, in the definition of the item list. This specific operation was balanced by means of subsequent reorganization of the clustered codes into generative subcategories, according to a precise analytical strategy that aimed to dynamically combine *abduction* in coding with subsequent reflection.

The PhD researcher is aware of this epistemic tension, that will be managed within validation strategies and limiting conditions, as described in Chapter 5. Where, the approach originally envisioned by Glaser and Strauss will crucially contribute (as *"primus*

inter pares" as specified in Chapter 5) to the empirical explorations ahead. Additionally, the PhD researcher did consciously make the best personal effort to manage the intrinsic tensions between a more rational approach to research (referred to the 1967 original interpretation of Grounded Theory) and a more experimental (abductive) treatment of primary data (as advocated by postmodern scholars, e.g. Charmaz). In the context of the postmodern paradigm and of participatory practices, to call for a central role of the "sociologist" as key actor in the process of "discovery" (or better formulated: of detection of constructed realities) in social sciences might seem like yet another contradiction. However, the reiterated reference to *abduction*, as articulated in earlier chapters, might already logically imply such operational centrality of the researcher, who is tasked with the exercise of his deontological control in order to prevent the analysis to drift into the plain collection of anecdotal vignettes, below the necessary level of synthesis and relevance required by qualitative research.

Empirical strategy, operational tactics

In the mixed method defined for this PhD study the emergence of Grounded Theory was preceded and paralleled by a robust preliminary examination of existing theoretical arguments, recalling Cresswell's crucial notion of "methodological congruence": *"…the purpose, questions, and methods of research are all interconnected and interrelated so that the study appears as a cohesive whole rather than as fragmented, isolated parts"* (Morse, Richards, 2002, quote in: Creswell, 2013, p.50). Creswell's quoted challenge of "methodological congruence" was pursued within the realm of qualitative research, according to its most universal principles: *"Qualitative research begins with assumptions and the use of interpretative frameworks that inform the study of research problems addressing the meaning that individuals or groups ascribe to a social or human problem. To study this problem, researchers use an emerging approach to enquiry, the collection of data in a natural setting sensitive to the people and places under study, and data analysis that is both deductive and inductive…"* (Creswell, 2013, 44). From a methodological perspective, harmonizing the generative nature of Grounded Theory with such "corpus" of preliminary bibliographic explorations might appear as a major formal challenge. In this specific context, theory manifested itself in the very formation of empirical research design fundamentals (e.g., item list as questionnaire framework to semi-structured open interviews). In particular, reflexively and retrospectively, a direct influence of the theories unveiled in Chapters 1 through 4 was also instrumental in determining the lines of empirical investigation across the entire conversation set with the purposive sample identified for such interviews. This circumstance alone might have been viewed, before postmodern interpretations of the methodology, as detrimental to the purity of the Grounded Theory approach. It was, instead, adopted as an additional asset in diversity, robustness and soundness of the mixed method design and surely not as a minus. By holding the generative nature of research as a central priority, therefore reserving to combine this modality with different assets and approaches, it is indeed the ambition of this PhD study to non-dogmatically adopt Grounded Theory with the greatest flexibility as part of a hybrid conceptual construction. These methodological principles will be manifested in the discussion and definition of the empirical findings and their reporting in editorial form within the three chapters ahead. In order to introduce the next chapters processing the "History and Context", "Product" and "Process" empirical data, as selected from the interview transcripts, the following additional observations can be distilled for further exploration:

a) by "History" is intended the editions of the program prior to the appointment of the PhD researcher to its leadership, namely the 1996 first global edition, resulting in the 1997 book, not included in the research objects, where FutureConceptLab of Milan consulted Philips Design with the creation of the urban futures matrix;

b) by "Context" is intended a selection of urban futures projects based on the city.people.light blueprint other than the research objects, where the PhD researcher was not involved in terms of design specifications and process management. Including a Philips Design consulting project for the City of Eindhoven, where no involvement happened, and a Philips Lighting Poland SA marketing program, where involvement was limited to the function of presenter and ambassador of the urban futures matrix;

c) the "book" as key deliverable of the entire city.people.light approach is the result of an (editorial) design process, as identified since the time of early publishing; historically/contextually, the book as product represents the heart of the "Central Phenomenon" for its "communication" component;

d) the "workshop" appears to be the main co-creative / contributive engine of value creation within city.people.light as a process at the crossroads of "design" and "marketing" or "CRM"; historically/contextually, the workshop as process represents the heart of the "Central Phenomenon" for its "creation" process component.

Irrespective of the difference in focus and in content the three chapters 6, 7 and 8 will operationally represent an "outside in" sequence, with reference to the "research objects":

a) a preliminary history and context-focused coding (Chapter 6), focusing on history (before 2006), context (beyond city.people.light) and possible ancillary projects (follow up, spin offs and assorted derivative application and exploitation opportunities of city.people.light assets as created in the global programs of 1996 and 2006);

b) a specific 2007 and 2014 "product coding" (Chapter 7), focusing on "structural moments" (books) where city.people.light scenarios and concepts were consolidated in editorial format. Therefore, rigidly edited for consistent, distinctive, memorable communication over time, in an apparently intrinsic order, with the possible purpose to exercise authority and elicit benefits of relational, commercial or strategic nature;

c) a specific 2006 and 2011/2013 "process coding" (Chapter 8), focusing on "practice-based moments" of organizational nature (managerial decision-making, workshop facilitation) where city.people.light performances were specified, planned and enacted in all their enabling conditions and tactic operations at each given moment. With the purpose to execute the programs, as based on key performance indicators, resulting in scenarios and concepts of urban futures. Being staged, performed and enacted as unique events in time, workshops cannot be described "in vitro" as city.people.light books do, hence their "practice-based" nature requires information to solely emerge from primary data.

Ultimately, the very nature of these empirical chapters and their primary sources is that of functional effectiveness within the larger mixed method framework, with the clear objective to fulfill the purpose of this PhD project, as identified in Chapter 5:

"The purpose of this mixed-method PhD study is to understand and describe the role of "design" in the generation of "urban futures" scenarios and concepts (namely, visions and visualizations) and their subsequent communication, with focus on specific "research objects" (products and processes) related to city.people.light programs between 2006 and 2014".

Chapter 6 will therefore cover history and context of city.people.light. Chapters 7 and 8 will respectively reference the "products" (indirectly referred to DeCerteau's structures and strategies) and "process" (indirectly referred to DeCerteau's practices and tactics) articulating city.people.light in its 2006-2007 global and 2011-2014 European programs, according to a precise research rationale, starting from the Central Phenomenon in its original form, as formalized in Chapter 5:

"The Central Phenomenon is identified as the research-based process of creation and subsequent communication (through editorial products) of scenarios and concepts in postmodern times (with the initial claim that city.people.light is an application of the High Design approach, the latter being a specific proprietary people-focused, future oriented, design management process by Philips)".

Within this PhD, in Chapter 9, "Sensitizing Concepts", based on the three aforementioned theoretical tensions, constitute the triggers for a generative procedure to be performed after the Grounded Theory coding of basic empirical materials from direct expert interviews, aimed at verifying affinities and divergences along those three axes. These three aggregating "Sensitizing Concepts" will therefore not drive the initial analysis of Chapter 6, 7, 8 in terms of Open Coding and Axial Coding, in order to enable the emergence of any materials or directions without theoretical manipulation at early stage. This specific methodological choice was adopted in order to enable the bottom up formation of analytical aggregations of empirical data and it will, from there, enable an empirical platform to deliver new possible theoretical directions, again to be addressed in Chapter 9 ("Conclusions"). More synthetically, when granting the full priority to the Central Phenomenon as due, literally taking into account its definition above, the focus of Chapter 6 will be –as based on what introduced and specified on theoretical and bibliographic basis in Chapter 4:

a) history and context *of city.people.light programs as research-based phenomenon. Based on the initial claim that city.people.light is an application of the High Design approach, the latter being a specific proprietary people-focused, future oriented, design management process by Philips, with a key category focusing on "Design" as general reference to the key research problem governing this PhD.*

The focus of Chapter 7 will be on:

b) communication *of (urban futures) scenarios and concepts, with key category focusing on the "book" as product designed as structural moment to channel and communicate city.people.light findings;*

as strategically structural moments being in the "city.people.light" "white book" printed in 2007 (based on the cover color) and in the *"Create the Livable City"* book published in 2014, as introduced and specified in Chapter 5.

The focus of Chapter 8 will be on:

c) creation process *of (urban futures) scenarios and concepts, with a key category focusing on the "workshop" as process designed to enable professional stakeholders and members of relevant communities of practice to generate city.people.light findings;*

as process-oriented moments in the city.people.light programs performed in 2006 (globally) and 2011–2013 (Europe), covering the specific workshop management strategic approach and tactical practices, based on the overall managerial decision-making overview introduced and specified in Chapter 5.

In its totality across three chapters, the overall focus of this empirical section will therefore gravitate on the entire spectrum of the "Central Phenomenon", contributing through primary data to its specification in terms of actual definition. Deliberately exceeding the limited scope and necessary focus of "research objects", Chapter 6, in particular, and then Chapters 7 and 8 were be operationally developed with the ultimate goal to provide the necessary "thick descriptions" as background to the testing of key hypothesis on the impact of "design" within urban futures, as approached by city.people.light programs, according to the "problem" as it was translated into the general Key Research Question and that will be fully addressed at later stage, in Chapter 9 ("Conclusions"):

"How does a design process help to envision (preferable) futures for cities, under postmodern conditions?"

Through this Section III by means of the repeated, somehow rigid, structuring of each chapter, further specified at the very end of this Introduction, the actual essence of "research objects" will emerge from the empirical analysis starting from primary qualitative data through the coding procedure, in the form of verbal nodes extracted and accumulated directly from the verbal texture of expert opinions. By means of such steps, at the conclusion of each chapter, it will be possible to narratively describe what the key constituencies are of city.people.light history, context, "products" and "processes" on the basis of generative research findings and beyond theoretical deduction or any educated guess as an "insider" by the PhD researcher. Once again, the empirical data coding as primary emergence process is particularly necessary for the analysis and understanding of "workshops", given their practice-based nature of unique events in time. While "books" as "research objects" are "the" actual objects, any workshop description will be a secondary source, representing *"post mortem"* the actual event as uniquely performed in a given place and time.

Interview execution: staging and performance

Grounded Theory has been no stranger to criticism, especially from the viewpoint of its intrinsic tension between protocols and experimentation, and also because of its original 1960's "inductive branding" as opposition to the full theoretical possibilities offered by *abduction* as a governing principle (Tavor, Timmermans, 2014, pp.15 – 17). Having already investigated, referenced and proposed the flexibility of the approach as a next

step it is then important to clarify what are key constituencies of the empirical data collection and processing towards its operationalization. Charmaz summarized the essential elements of Grounded Theory in 9 specific, pragmatic, actionable points, of which the first 5 points are discriminatory and sufficient, according to her, to qualify a qualitative study as operating within this methodological approach (Charmaz, 2010, quoted in: Denzin, Lincon, 2013, p.301):

1) *to conduct data collection and analysis simultaneously in an iterative process;*
2) *to analyze actions and processes…;*
3) *to use comparative methods;*
4) *to draw on data… in service of developing new conceptual categories;*
5) *to develop inductive categories through systematic data analysis.*

This introduction and the next three chapters will focus on points 1 through 4, with Chapter 9 being focused on point 5. As extensively anticipated in Chapter 5 a major moment in terms of data collection within this PhD project was represented by expert dialogs in the form of semi-structured interviews. It is important to clarify a number of operational circumstances related to the concrete execution, at a given moment in time (Autumn 2013), of these interviews before presenting the coding strategies elaborated to process the resulting transcripts:

a) interviews were performed at a very early stage of the empirical moment of the research process. Namely, immediately after completion of the theoretical chapters 1 through 4 in order to ensure the maximum openness in terms of exploratory nature of the expert dialogs;

b) accordingly, interviews were performed in order to generate the maximum quantity and quality of information and data. Therefore, exceeding, at times, the strict focus of any individual topic, e.g. “research objects”, in response only to the flexible possibilities offered by the item list (as derived from theory in Chapters 1 through 4) and to the specific history, interests and focus of each interviewed expert on a highly customized basis;

c) the above choices were consciously made by the PhD researcher as part of the constructivist generative approach that this PhD aims at consistently adopting and executing.

Interviews were staged as semi-structured dialogs of an informal nature. Where two key priorities of grounded theorist empirical research were fully factored: *“…learning the participant’s words and meanings; and exploring the researcher’s areas of emerging theoretical interest when a participant brings them up”* (Charmaz, 2014, p.84). The task was simplified by the specific circumstance that saw all interviewed experts being former professional acquaintances of the PhD researcher. This already established a common sphere of meaning-making, with a relevant share of common ground and mutual understanding, enabling “intensive interviewing”, as discussed by Charmaz (Charmaz, 2014, pp.84-85) to be practiced: *“Intensive interviewing focuses the topic while providing the interactive space and time to enable the research participant’s views and insights to emerge”* by means of *“…a combination of focused attention and open ended enquiry”*… (Charmaz, 2014, p.85). In view of this circumstance, the item list was defined with a greater extension than a single interview would have time-wise enabled, as the goal was to cover all possible facets of city.people.light (as emerged at preliminary phase through

the bibliographic review of Chapters 1 through 4). Well beyond what any individual interviewee might have contributed. One might say that each interview was progressively drafted and flexibly improvised with a semi-structured, open ended approach, by differentiation and divergence from a standardized item list. Such item list, as explained in its principles in Chapter 5 and reported in the Appendix D, was formed with particular focus on Chapter 4, as Chapter 4 presented the city.people.light approach in its methodological implications and connections to theory.

Besides general questions on the background and perceptions of the respondent this flexible format focused on the key priorities outlined in Chapters 1 through 4, in order to understand the a) process behind city.people.light, leading to its b) products, taking into account their c) historical and contextual conditions. The PhD researcher constantly kept track of covering all topical and thematic areas enucleated in the reference backbone item list, to fulfill the purposes of each interview. Therefore, the flexible adoption of the item list enabled the "educated guess" that, if not all specific items, every area of relevance was to be addressed as intensively as possible with every expert, dynamically depending on their background, specialization and interests. Based on the existing acquaintance with each interviewee, interviews were "horizontally" executed as "peer dialogs" where the researcher and the interviewee "share" a space of expertise on equal terms, with their physical presence, body postures, voice intonation, articulated in terms of pauses, interactions and at times of reflection, or the equivalent when the dialog was conducted remotely on Skype. The interview design and execution priority were therefore set on enabling the emergence of (apparently) intrinsic qualities of city.people.light (as design process to form urban futures scenarios) as part of elicited and/or self-generated narratives within a circle of mutually related professionals, sometimes acquainted with each other over the years.

As introduced above, theoretical findings from Chapters 1 through 4 were key in determining the design and content of the framework that constituted the backbone of every interview. Specifically, it must be stressed how theory validation of earlier PhD findings was not the purpose of this empirical exploration. In this respect, it appears relevant to reiterate how both the framework (de facto replacing a unified questionnaire as reference to compare and manage the open interviews) and the selection of thirteen interviewees were not designed and were not enacted with the empirical aim to test, to validate or to falsify any of the preliminary theoretical findings. Such a motive was practically never addressed in any of the interactions or follow up data processing, also in view of the vocational background of interviewed experts, who operate all in an applied sciences context. On the contrary: *"…The stated goal of grounded theory strategies is to focus data collection to construct theory… Thus you have two overall objectives for interviewing: attending to your research participants and constructing theoretical analysis"* (Charmaz, 2014, p.87). The ultimate purpose of each interview execution was to generate a transcript with a relatively comparable quality with respect to all other conversations, at each given session. Interview transcripts as primary data, on recorded documents, are central to this PhD project since they recollect the essence and the existing assets generated during these conversations. Although, inevitably editing out a mass of informal and non-verbal information. As the reference to Carmelo Bene stated in the introduction to Chapter 5, the written text is always, inevitably, *"the oral dead".* In this case, the annihilation of poetry that death inevitably brings was managed, and hopefully mitigated, by means of a systematic analysis process.

Transcript analysis

The analysis of transcript materials presented a number of operational circumstances that require preemptive clarification, in order to support the methodological articulation of coding procedures:

a) in order to maintain the full equity of the constructivist generative approach, it was important to perform a number of coding operations that might prevent, or at least reasonably manage, the risk of organizing the data on the basis of theoretical categories as already included in the item list. Therefore, delivering empirical findings in the form of self-fulfilling prophecies simply mirroring theoretical topics, motives and propositions already identified in the bibliography presented in Chapters 1 through 4;

b) at the same time, in order to manage the great quantity and diverse quality of information included in the transcripts, due to the early timing and exploratory modality of the interviews, an efficient and effective leverage to such theoretical categories included in the item list appeared as necessary;

c) from a structural viewpoint, the transcript analysis required due anticipation of the final destination of the empirical exercise in this PhD, namely the generation of new theoretical propositions.

As already introduced in Chapter 5 as part of the guidelines, each interviewee reviewed and approved her own interview transcript, with any required OMISSIS being cut out on explicit request. The resulting transcripts were processed through the pre-existing Prefigured Codes (defined from the theoretical Chapters 1 through 4 and from the item list) and their content disentangled into individually attributed quotes. The text of transcripts was therefore unedited from the viewpoint of styling and grammar and any formal imperfections as recorded in the transcript were fully included. The analysis of interview transcripts, with sole exception of such omitted parts at explicit request of the interviewee, was conducted in the form of abductive clustering, with the purpose to identify meaning-making nodes, represented by coherent “codes” or their semantic sub-units, and their axial cross-referencing.

While each interview only covered a selection of items, the theory from Chapters 1 through 4 and the item list in its totality was flexibly adopted as generic reference to generate the a preliminary coding grid (see below; “Prefigured Codes”). This design was adopted in order to guarantee the best adherence and comparability of the recorded transcripts to the overall early exploratory intent and generative purpose, as anticipated at the moment of performing the interviews (indirectly reflecting related *“theoretical concerns”* by Charmaz (2014, p.89): “*plausibility, direction, accuracy, openness”*) (Guest, Bunce, Johnson, 2006, p.78). In particular, the “emergence” of findings from research data within this PhD project was inspired, as much as possible by iteratively detecting intra-textual semantic recurrences in individual answers, identifying any conceptual alignment of semantic content or implied intent, and then performing the necessary coding procedures. From the generation of subcategories, the function and presence of transcript materials in this PhD study were both exhausted, therefore next steps were based on new textual lines, only indirectly referred to interview quotes or topics.

Coding: theory and methods

Within this PhD study, coding procedures were applied to interview transcripts, with additional empirical or reflexive information to be leveraged as a consolidation factor, when appropriate. This specific focus aimed at preserving the constructivist nature, at the epistemic heart of the PhD, hence building up a convergence of individual viewpoints into semantic clusters where meaning-making moments will take place. In general terms, "coding" is, almost tautologically, the process of extracting and combining generic "codes" of analytical value from empirical data, mostly referred in methodological bibliography as interviews: *"A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence capturing, and / or evocative attribute for a portion of language based or visual data. The data can consist of interview transcripts, participant observation field notes, journals, documents, drawings, artifacts, photographs, video, internet sites, e-mail correspondence, literature, and so on… Charmaz (2001) describes coding as the "critical link" between data collection and their explanation of meaning"* (Saldana, 2013, 3). From an epistemological viewpoint, one might define a code as a "transitional object": *"As Star (2007, 84 notes, grounded theory codes are "transitional objects"… As transitional objects, they connect fragments of data with the analytic abstraction that we accord to them"* (Charmaz, 2014, p.113). One might recall a potential epistemological parallelism with the critical realist notion of "posits"; as presented in Section I. Through the formalized procedures specified in this introduction and enacted in Chapters 6, 7 and 8 the "Central Phenomenon" will be progressively explored through the analysis of direct quotes that will be extracted, "coded" and analyzed as building blocks for generative subcategories from primary research interviews: *"With grounded theory coding, you move beyond concrete statements in the data to making analytic sense of stories, statements and observations"* (Charmaz, 2014,p.111). While diverging in content, the empirical chapters commonly aim to investigate history and context "around" (6), and key deliverables (7) and processes (8) "inside" the Central Phenomenon.

The sequential coding procedures were executed with exceptional attention to keep the focus on the Key Research Question by means of sequential waves of interpretation, *abduction* and classification. Within transcripts, textual clusters were identified in terms of their specific pertinence and relevance for either the 1996–1997 process and book of city.people.light (in Chapters 6) or 2007–2014 products (Chapter 7) or 2006 – 2011-2013 process (Chapter 8), in order to enable specific research focus as due per the categories of history and context or research objects. An only exception was represented by a number of hybrid quotes that might apply to more chapters. Where a choice was made, partly functional, to the priorities of the interpretation and analysis. Such choice was made partly responding to abductive principles related to the recall of related events ("insider" role") or memories from the specific interview at the time of its execution. In line with the above elements provided as reference, principles of Grounded Theory indicate that both conclusions and theoretical propositions itself should, as much as possible, emerge from the analysis of primary findings and coding. It should be recalled once again how the item list was actuated in flexible dialogs, that were elastic and mobile in their execution on an ad hoc basis, as much as they then crystallized verbal dialogs around "local concepts" in the analysis (additional and therefore not the same or equivalent to "Sensitizing Concepts" above, as derived from theory). A careful balance was therefore adopted in maintaining the coding procedure iterative in the course of multiple waves of coding in the first six months of 2015, in order to experiment how to resonate with the interview performance. One might say, that the coding methodology as

identified in early 2015 was then substantiated and specified in a slow process of dialectic adaptation with the empirical and practical operations.

Coding Waves: Prefigured Codes, followed by Open, Axial, Selective in Chapters 6, 7 and 8

Prefigured Coding (as based on theoretical hypotheses in Chapters 1 through 4 and the item list execution) was designed as the first step in the overall coding procedure of this PhD study. As methodological reference to validate the decision of leveraging Prefigured Codes as a class of concepts, a specific passage in Creswell was identified: *"Another issue is the use of preexisting or a priori codes that guide the coding process… Using "prefigured" codes or categories (often from a theoretical model or the literature) is popular in the health sciences… If a prefigured coding scheme is used in analysis, I typically encourage the researchers to be open to additional codes emerging during the analysis"* (Creswell, 2013, p.185). From a conceptual viewpoint, a methodological category that might apply this coding phase is that of "Structural Coding*": "Structural Coding applies a content based or conceptual phrase representing a topic of inquiry to a segment of data that relates to a specific research question used to frame the interview (quoted from: MacQueen et al., 2008, p.24)… Structural Coding is appropriate for virtually all qualitative studies but particularly for those employing multiple participants, …semi-structured data-gathering protocols, …exploratory investigations…"* (Saldana, 2013, p.84). Prefigured Codes, depending on the proximity of their content in relationship with the actual "research objects" (2007 and 2014 editorial products and 2006 and 2011–2013 managerial and operational processes):

a) "Basics" and "Futures", that one might also define as "Icebreakers", intended for a basic understanding of the fundamental aspects of operational aspects of city.people.light;
b) "Products" and "Process", aimed at exploring more dense or relevant clusters, shedding light on topics and motives closer to the "research objects" within the PhD project.

This distinction is purely operational and it has no impact whatsoever on the actual validity of each category or of the coding materials there included. Also, it must be specified before providing more details about the coding process in its entirety that it is necessary, as part of the *"bricolage"* mixed method adopted for this PhD project, to differentiate between:

a) Prefigured Codes; to be leveraged in Chapters 6, 7, 8, introduced here above, as emerged from the consolidation of empirical research guidelines (theory from Chapters 1 through 4, interview item list and interview execution) through general abductive principles, offering the opportunity to cluster the overall content from the 13 empirical interviews into a first macro-analytical overview;

Versus:

b) Sensitizing Concepts, introduced in Chapter 5 and to be leveraged on Chapter 9 only, as solely defined on the basis of theoretical tensions. Offering the conceptual space for the possible generation of new, specific, theoretical propositions (Grounded Theory). It can be reiterated that the above three

Sensitizing Concepts will once again only be leveraged in Chapter 9, not earlier in this dissertation.

Because Prefigured Codes represent a "weak link" between theoretical arguments presented in Chapters 1 through 4 (that were used as basis for the item list), and the empirical data analysis, from a "purist" Grounded Theory perspective it would be premature, perhaps even incorrect, to apply a theoretical framework to the analysis of coding materials, although indirectly as done here. Nevertheless, within the present PhD study, the *"bricolage"* mixed method approach enables the freedom to tactically leverage a specific theoretical reference, to help reference and consolidate coded clusters of primary materials.

First Coding Wave: Prefigured Codes

In order to report on how Open Coding will be performed a first step is to identify the Prefigured Codes and concisely describe them, as equally valid for Chapters 6, 7 and 8. For this purpose, below, a general rationale is provided showing how Prefigured Codes emerged, in relationship to earlier theory, with a number of anticipations derived from implicit background insights which might help to grasp the actual reach of each code. In this respect the theoretical chapters did supply references and parameters to contextualize the history of city.people.light, in order to map quotes and references within a more systematic framework that might anticipate, where appropriate, theoretical reflection. This introduction will not be duplicated in the next chapters, although being an integral part of their coding procedures as well. It is therefore important to refer back to this introduction at any time in the navigation of the coding Chapters 6, 7, 8.

Prefigured Coding Cluster: Basics

The narrative line of this first editorial aggregation of "basic" Prefigured Codes is centered on the presentation and dissection of the key constituencies of city.people.light. Hence, the basic elements that might enable a general understanding of the approach from historical and conceptual viewpoints. By examining diverse opinions and at times diverging viewpoints emerged from interviews, this cluster will address the need to define what the program delivered, how its success was measured and what were perceived as its unique points.

1.1 *Key outcome: what city.people.light generated*

The first icebreaking "Prefigured Code" of this editorial cluster is focused on learning from interviewees what the actual perception of output and outcome of city.people.light processes is. In particular, this code is about the *"what"* (nature of deliverables) was delivered by city.people.light and its collateral programs. "Knowledge" appears central and a triggering starting point to review the outcome of city.people.light. A key ancillary question to be investigated is a taxonomic one; what type of knowledge (Habermas) was generated by city.people.light related programs and projects? Across the interviews, and through their analysis, it was possible to identify references to different modalities of knowledge at this level of general categorization. In order to capture these dialog notes, the related references and quotes were organized according to what originally envisioned by Juergen Habermas and elaborated by Kuosa (2012) as theoretically defined and presented in Chapter 4. There, three "dimensions" of knowledge were articulated:

- predictive / empirical dimension;
- cultural / interpretative dimension;
- post-structural / critical dimension.

A challenge presented by this Prefigured Code is therefore to structure a preliminary analysis of such knowledge, in taxonomic terms:

1.1.1 Functional Knowledge

[Definition: *Predictive / empirical dimension of knowledge: a more deterministically attuned study of hypothetical futures that are assumed as possible to be known* (Kuosa, 2012, p.32)]

This first dimension pertains the creation of knowledge applicable to roadmaps within the same innovation paradigm and market framework, e.g. next generation of products based on technological evolution in continuity.

1.1.2 Monitoring Knowledge

[Definition: *Cultural / interpretive dimension of knowledge: a language-based, comparative generation of cultural insights into possible future human conditions…* (Kuosa, 2012, p.32)]

This knowledge dimension pertains a less instrumental, higher level of insight, one where the future might be envisioned beyond current paradigms and frameworks.

1.1.3 Reflexive Knowledge

[Definition: *Post-structural / critical dimension of knowledge: a paradigm-lifting exploration of futures beyond current discourses of epistemological understanding…* (Kuosa, 2012, p.32)]

After this first taxonomic introduction to the different categories of knowledge generated by city.people.light, further explorations might be required, pertaining the actual format typically adopted to package such knowledge in the form of scenarios, sketches and other research findings. To summarize, this "Prefigured Code" was built upon the semiotic notions of knowledge and its taxonomy, as presented in Chapter 1, and operationalized the classification of knowledge as defined by Habermas and reported by Reason, Bradbury (2004).

1.2 *Key performance indicators:*
how the value of city.people.light outcome was measured

This second "basic" "Prefigured Code" will address the challenge to assess the performance of city.people.light in terms of the meaningful or relevant or measurable value generated for the enterprise. In particular, the natural aim of corporate performance measurement is identifying the *"how much, how valuable"* (quantity and quality of deliverables) delivered by city.people.light and its collateral programs. This kind of assessment is the domain where, at the time of having the interviews and writing this PhD, 2013–2015, the Net Promoter Score is the standard reference, as the

corporate measurement approach universally adopted by Royal Philips NV. NPS primarily identifies the measurement of probability that a customer would repeat and refer his friends and family to a specific experience. However, NPS did not exist in 1997 or even in 2007, therefore this measurement tool is only applicable to *"Create the Livable City"* (2011–2013 process, "research object" in Chapter 8) and "Architects of Light" workshops (2012–2013, collateral program, part of "context"), starting circa 2008. This might have resulted in a potential risk at the level of management reviews for future budget allocation according to a generalized yet apparently pervasive "corporate simplification": *"what cannot be measured, will not be funded".*

1.3 *Perceived Points of uniqueness of city.people.light*

This "Prefigured Code" will aggregate different responses to the challenging task, presented to interviewees in several different ways, to probe what are the actual points of distinction of city.people.light that might position it as unique in the mind of a selection of its key promoters, agents and stakeholders. Of course, the most natural reference for a program in a commercial enterprise is the actual reception and reaction of the outside market contexts, with specific sensitivity for the competition. Here it should be probed how in 1996–1997 city.people.light was unique as it was a first attempt in a new kind of programs, hence uniqueness by leadership.

1.4 *Educational unique value of city.people.light (academic, applied)*

This specific "Prefigured Code" will focus on the potential (academic and/or vocational) educational value of city.people.light knowledge, as experienced by interviewees. In general terms, it seems to be a consolidated ambition, that the educational dimension of city.people.light is expressed through its events as a strong element of its uniqueness. At least since the first half of the 2010's, with "Architects of Light" in Poland, such ambition has become an integral part within the city.people.light narrative discourses, whereas earlier it appeared to be more dispersed and void of an actual structural synthesis.

1.5 *Financial Ownership*

The issue of "ownership" at the level of corporate business entities might be defined as organizationally crucial, with particular focus on the budgetary and financial sides. It is interesting to note here how such a motive exceeds the pure monetary aspects, to go deeper into the actual self-perception of different units within Philips, almost at the level of identity and its representation. In the context of this PhD, "budget" might appear a relatively rigid technical KPI at first sight. Beyond its binary nature of mandatory KPI ("*Was the project without or above budget?*") the purpose of budget related quotes and codes is wider and deeper. As this is set to investigate the actual and formal ownership of the city.people.light approach and its programs and projects between Philips Design, a global service unit of Philips International BV, and Philips Lighting Solutions BV, the business organization operating in the lighting market sector, including its urban outdoors segment. As customary in business contexts one might state: *"Those who pay ultimately decide how to play"*.

1.6 *Post-event/post-program applications*

This last ancillary "basic" "Prefigured Code" is aimed at probing the extension of the

legacy and verifying the activation stretch of city.people.light programs beyond their natural duration as such. Once again, it was also in this specific context, that the Eindhoven Strijp-S lighting experience masterplan (2008) was operationally identified as a non-Philips Lighting owned and led extension. Therefore, being most external and remote from the managerial control of the corporation, potentially leading to relevant insights about the value and validity of the city.people.light approach beyond its mother company and direct budget / business owner.

Prefigured Coding Cluster: Futures

The narrative line of this second editorial cluster will shift from introductory "basics" describing the program as an enterprise resource and general corporate asset, to an investigation of the specific "foresight and futures research" program. The editorial flow will start from a classification of innovation horizons, in order to complement from the viewpoint of innovation theory, the description of city.people.light output from Habermas' knowledge categories with an understanding of the different levels of impact and scope of the approach within and beyond the corporation. Also, in continuity with the above "basic" framework the next cluster will address the challenge to explore relevant structures in city.people.light, probing both the aforementioned Urban Futures Matrix as well as workshop formats. Furthermore, technical aspects of foresight theory and methodology will be highlighted, as emerged from various interview quotes, to conclude with a reflection on the role played by "technology" within this futures research approach. The picture that will emerge from this editorial cluster will offer a preliminary assessment of city.people.light as a design driven approach to investigate the future, with historical and contextual quotes supporting various and diverse possibilities for methodological description.

2.1 *Innovation horizons (Continuous innovation, disruptive innovation)*

It is possible to anticipate that city.people.light sparked from the ambition to work across all different horizons, from the most disruptive (Horizon 3) to the mundane next generations of propositions (Horizon 1), to the visionary within the industry of reference (Horizon 2). Existing literature studies the "gap" between Horizon 3 innovation (blue sky visionary concepts) and markets, with the purpose to demonstrate how radical change might be achieved through design driven innovation (Verganti, 2009). From this viewpoint, however, city.people.light apparently managed to define its own formula to achieve an optimal balance between these two worlds, at least in its 1996 and 2006 global research programs. With further reference to theory this "Prefigured Code" captures the dilemmas created by the political tension within the "design" field. As embodied by Fry's notion of *"defuturing"* (the need to radically change approach to design, to prevent self-destructive spirals of consumption fatally impacting the environment) as presented in Chapter 3. In this last respect, it must be noticed how the storyline of city.people.light does not explicitly include sustainability, except for the specific findings in terms of research outcome and workshop deliverables.

2.2 *Structures (Workshops, Matrix)*

This "Prefigured Code" pertains "structural moments" (matrix as reference for workshops and beyond) and practice oriented moments (personal interest within workshops and research processes) within city.people.light described in Chapters 1 and 2, namely in the line of DeCerteau, The purpose here is to identify recurring structures regulating the

production of foresight output, anchoring the futures research process at precise milestones. Such a goal establishes a strong thematic tension; how may a personal interest, one lying in the liminal third space of practice, be leveraged in a research program? The challenge underlying this Code therefore appears herewith sketched in the following question; what organizing structures, beyond the theory of High Design, enable the connection between individual energies and a "repeatable process"? Giddens, Latour and the application of their visions to the explanations of the epistemological principles behind Action Research. DeCerteau's dialectic opposition of power-supported "propers" versus the liquid mobility of tactic practices is part of this concept as well.

2.3 *Forecasting Rationale (Falsifiable Forecasting, Genius Forecasting)*

This specific "Prefigured Code" will focus on a potential tension within the city.people.light general storyline. The key purpose is probing how individual leadership, as captured within Chapter 4 in the notion of "Trained Judgment" (Van Berkel) and as connected to futures research in the conclusions of Chapter 3 (Flusser), implicitly generates the conditions for "genius forecasting". On the other hand, the structuring function of the Urban Futures Matrix and the general narrative of city.people.light point towards an academic, if not scientific, solidity, where falsifiable results might not be considered alien. Additionally, the longevity of city.people.light, a most unique case in the design and lighting industries with its 20 years of existence, is even more noticeable, given the substantial absence of one specific managerial champion. The case history of even a single edition of city.people.light, e.g. the 2011–2013 research program, as it was presented in Chapter 5, might reveal how multiple generations of internal champions and stakeholders ensured the extension in time of the approach, against all odds. One of the indicators of this relative complexity in steering the program is once again the formal ownership and the budgetary reference in terms of enabling conditions for the various editions of the program, as explored with an earlier "icebreaker".

2.4 *Forecasting Techniques (Generating, Integrating)*

This Prefigured Code directly re-connects to the framework elements quoted from Bishop, Hines, Collins (2007) in Chapter 2.With the intent to explore: a) to what extent and in which phases the city.people.light approach is focused on expanding on ideas of the futures versus b) to what extent and when the tools and techniques adopted for this specific application aim at the convergence and simplification of future visions. The city.people.light format could therefore be hypothetically visualized as a funnel where the generation of new ideas takes place through explorations at research and co-creative design levels, from qualitative expert interviews to the concept phase of workshops, to then switch to the normative modality of setting directions by envisioning future concepts.

2.5 *Technology (High Tech, High Design)*

This Prefigured Code is built across an implicit tension between technology and design, recurring in this PhD project at various points, from theory to empirical data. This last "Prefigured Code" in the "Futures" editorial cluster aims at probing whether "design" as High Design reached in city.people.light a sufficient "leverage" to govern the collective foresight processes. As captured in the earlier references, the counterbalancing role of High Design in a high technology context, like Philips, was defined as a strategic priority

at the moment of its inception. General relations and historical dynamics between "design" and "technology" as introduced in Chapter 3, from the viewpoints of Lash, Flusser and Fry, painted a different picture than a potential holistic balance and dialectic synthesis between technology and design. The intrinsic political risks of a technocratic paradigm applied to futures research were highlighted in Chapter 2, Paragraph 2 by means of a quote by Einaudi, to whom Bell referred. In terms of its strategic intent, the city.people.light programs originally expressed the intent to be a reaction and a reflection to optimistically avoid these risks. However, the actual emergence of new paradigms beyond the contemporary High Tech-driven discourses should be further assessed, to validate whether this is just wishful thinking or actual equity of the approach.

Prefigured Coding Cluster: Product

The narrative line of this third editorial cluster anticipates and mirrors the next Chapter 7, articulating an analysis of city.people.light "products". With specific focus on books as already identified as main carriers of content and output, and the general storytelling lines developed around and within city.people.light, in the answers by experts. The analysis will then shift on the actual city.people.light research deliverables, architectural and urban design concepts based on lighting innovative solutions, to attempt an empirical classification of the "content" of city.people.light findings in the wider context of current related discourses.

3.1 *Book (Editorial Design, Distribution)*

This is an area of conceptual density where more dialogs converged with a clear accumulation of references to the editorial format of books. While in the above codes the latter might simply have been identified as key tools for knowledge management. In this Code the topic will be further expanded and specified. Further empirical analysis, departing from this editorial format, already enabled a general assessment concerning the existence and the nature of knowledge management principles, according to the aforementioned taxonomy by Habermas. While the educational nature of city.people.light pertains a separate Prefigured Code above, what appears crucial here is once again the role played by books as vehicles of knowledge transmission. As a general conclusion, one might anticipate that the books, as published and distributed in 1997, 2007, 2014, were clearly identified as key repositories of knowledge in terms of accessibility, circulation and curated editorial choices.

3.2 *Storylines (Narrative Practices, Para-scientific Structures)*

In the city.people.light case narrative lines, as intended at the inception of the program, pertain a number of *"brand themes"* of relevance for Philips, e.g. urban development and lighting innovation at a strategic level. This "Prefigured Code" addresses a key point that already emerged from the theory as it goes to the heart of a potentially intrinsic contradiction within the city.people.light approach, in line with Castell's image of future scenarios at a risk of becoming inert packages of irrelevant content, e.g. media snapshots. The relationship between storytelling or city.people.light as a communication platform for narrative lines reaching both inside and outside the company versus the rational view of city.people.light as a formalized, repeatable, para-scientific platform might not immediately emerge as a strong contrast or a polarized dichotomy; yet it forms a major internal tension within and outside of Philips.

3.3 *Concepts (Physical objects, social spaces)*

Shifting to the actual "content" of city.people.light, this "Prefigured Code" could be seen as a reference to the theoretical elements provided in Chapter 3, Paragraph 5. There, the current urban architecture debate on "spatial agency" (Awan, Schneider, Till, 2011) was framed, defining contemporary urban design as a practice of "spaces" and not of "objects" (buildings) any longer. Accordingly, this Prefigured Code has the goal to assess to what extent city.people.light historically profiled and promoted advanced notions of urban architecture versus a more conservative focus on traditional design for buildings and objects. This relationship appears dialectic in nature and evolutionary over time, responding to urban management standards, creative industry paradigms and a natural tension between research ambition and product delivery. One might probe if, within an evolution of the program from product design to spatial experiences, an ideal tension, almost a natural ambition, might exist to investigate the more advanced issues of contemporary urban design in line with the nature of "open platform" for knowledge generation and exchange communicated as the equity of city.people.light.

3.4 *Symbols (Creative Leadership, Commercial Focus)*

In semantic continuity with the last Prefigured Code above the "symbolic" and "visionary" dimensions of city.people.light, at the moment of its conception and inception, represented the ambition to move beyond its contemporary industry standards (at that time, analogic lighting hardware products) towards new notions of urban architecture and Design Thinking (for example, leveraging emerging LED technology for the purpose of envisioning new experiences in space). This ambition is an intrinsic feature of High Design in the aforementioned vision by Stefano Marzano, as referenced in Chapters 4 and 5. Consequently, this "Prefigured Code" was generated through specific reflection moments aimed at exploring the discourses within city.people.light processes and output /outcome from the perspective of 'the economic context of design", as described in paragraph 2 of Chapter 3 from the viewpoints of Zukin (community marketplace versus design to close the gap between globalized markets and people), Slaughter and Fry.

Prefigured Coding Cluster: Process

The narrative line of this fourth editorial cluster pertains the "Process" dimension of city.people.light, therefore anticipating Chapter 8 and complementing the above editorial cluster on "Product" with a general introduction to the topic. The red thread in this editorial cluster will be the one of "networks", as seen from the theoretical perspective of Castells and applied to city.people.light. A dedicated Prefigured Code will also conclude this editorial cluster on this very same topic of "networks", going deeper into the details of theoretical notions, e.g. switching or programming. The central section of this editorial cluster will focus on the dynamics of community-creation, co-creation and participation within city.people.light workshops and programs in general. The adoption of a vocabulary and of specific theoretical references to network theory will be, yet again, functional to the filtering and clustering of interview materials.

4.1 *Relationship Management (Community versus CRM)*

This Prefigured Code will focus on the original intent and/or the final effect of city.people.light relationship management efforts by Philips. Were such efforts focused on the creation of communities of practice? Was the main focus of the impact of this

program to be identified in the actual relationship management of customers for strategic marketing and short-term commercial purposes, e.g. sales contracts or consolidation of contacts? On one hand, city.people.light can be intended as functional to community creation (with symbolic and social validation exchange), whereas at the other extreme of such tension city.people.light might be interpreted as a mere facilitator of commercial transactions (with monetary exchange) within networks. This code reflects and mirrors Castells' indication that either barter or financial benefits are the socio-cultural "glue" that connects networks that are the context where "relationships" happen. In this perspective, going back to network theory (as "networks" are the social spaces where these relationships occur), "barter", as identified by Castells, is yet again the fundamental modality of mutual reciprocation. Moments and processes of social validation and recognition embody a strong networking component and regulate the profiling of the program and its perceived value. The agendas forming the social foundation of city.people.light programs as collective phenomena are multiple, intertwined and sometimes contradicting.

4.2 *Openness (Co-creation, Contribution - for professional stakeholders)*

In continuity with the above Prefigured Code 4.1, the question regarding "Openness" can be summarized as follows: How truly co-creative is city.people.light when involving its professional stakeholders, once they are invited to partake? This "Prefigured Code" will be the first of two analyzing the nature of city.people.light from the viewpoints of co-creation and participation. In particular, it further deepens the analysis of the co-creative versus contributory component (Pisano, Verganti, 2008, 83–85) of the program, anticipating an assessment of its general participatory nature (as done in the below next Prefigured Code 4.3, related to citizen involvement) to the actual intrinsic quality of city.people.light processes, historically limited to professional stakeholders. This is because the program design could fall back on its specific format (where interactive moments are systematically planned) to enable contributions, even when indirect in terms of timing or presence, e.g. by means of primary expert interviews at the beginning of the process. As an additional source, the TU Delft Master Graduation thesis by Mischa Meekes (2013) was advised and provided by Dr. Marzano and by Laura Taylor, both interviewees, and therefore added to the references herewith considered.

4.3 *Participation (Participatory, Normative – for non-professional stakeholders)*

As anticipated in 4.2: How truly open is city.people.light for citizens, non-professional stakeholders to partake? This "Prefigured Code" is the second of two analyzing the nature of city.people.light from the viewpoints of co-creation and participation of citizens and non-professionals, as an Action Research alternative option of foresight. The working hypothesis is that the outcome of city.people.light might appear as normative in its visionary nature. Whereas, the openness of the creative process is limited because the access to the process itself is designed on the "gatekeeping" principle that only professional stakeholders may partake.

4.4 *Networks (programmer, switcher)*

As the "Process" cluster comes to its completion this last Prefigured Code will address a critical mass of reflections on relationships, communities and CRM, partially as an extension of what is already identified. In such context; "networking" as extensively described from Castells will be probed as a potentially primary process of value

generation within city.people.light. It might come as no surprise that this topic absorbed an important quantity and quality of quotes and observations, given its central role in this PhD study as a meta-narrative around design (Verganti's theory of Design Districts, Chapter 4).

The methodological rationale as provided above did apply across all empirical chapters 6, 7, and 8. Therefore, the above introduction of generic Prefigured Codes will apply, and not be editorially repeated, in each of the next three chapters centered on coding. The process above was repeated multiple times as part of the abductive approach of convergence and reflection towards Generative Subcategories that will be the basis for axial Themes in each empirical chapter and for theoretical propositions in Chapter 9, with the same principles for the Chapters 6, 7 and 8. Several iterative attempts and experiments were conducted on the empirical data in the first semester of 2015, leading to the conclusion that a deeper analytical approach is required for this PhD. One may speak of *"trial and error",* with a multitude of operations attempted and discussed with the promotors and reviewers of this PhD, and accumulated over six months of research. Of course, it might be not only possible but even apparently efficient to engage in the plain semantic analysis of transcript quotes directly from the nineteen Prefigured Codes. However, such a simplified step might not guarantee the generative nature of meaning-making that was subscribed to by opting for a constructivist epistemic-driven Grounded Theory. Prefigured codes were shared across all three Chapters 6, 7 and 8, hence their presentation in this introduction, as a resource that was leveraged over the entire Section III.

Further Coding Waves:
Open Coding, Axial Coding and Selective Coding

Shifting from Prefigured Coding to Open Coding, Axial Coding and Selective Coding, bibliographic sources confirmed as operationally valid to perform coding procedures in multiple and distinctive waves with differentiation of semantic cluster structures; *"The portion of data to be coded during First Cycle coding processes can range in a magnitude from a single word to a full paragraph to an entire page of text to a stream of moving images. In Second Cycle coding processes, the portions coded can include the exact same units, longer passages of text, analytic memos about the data, and even a reconfiguration of the codes themselves developed thus far"* (Saldana, 2013, p.3). In this respect the methodological choices made for this PhD entail, indeed, a first coding wave; identifying and addressing longer or more informative paragraphs in interview transcripts, with the purpose to diffusely render the "real voice" of experts at the moment of the interview. It is a clear intent of this approach to reflexively preserve, as much as possible, the realist texture of the "verbal moment" in quoting unedited portions thereof, in its *"as is"* form, almost straight from the tape (unless omitted at request of the interviewee), generating "codes" as intermediate aggregations of meaning-making text; *"Conducting grounded theory coding involves […] at least two main phases: 1) an initial phase involving naming each… segment of data, followed by 2) a focused, selective phase that uses the most significant or frequent initial codes to sort, synthetize, integrate, and organize large amounts of data"* (Charmaz, 2014, p.113). In order to operationalize the notion of coding into an organizing principle valid across the three chapters, it seems appropriate to recall how three different categories of coding are defined (Creswell, 2013, p.89):

a) Open Coding: selection and segmentation of information, with the purpose to

identify a semantic preliminary coding level, leading to analytical identification and editorial clustering according to and emergence of textual materials for potential "subcategories", that will generate "propositions";

b) Axial Coding: re-organization of data according to the "axis", e.g. a newly defined coding paradigm (a central category embodying the phenomenon, or "Central Phenomenon"), and its constituencies: a) causal conditions; b) strategies; c) context and intervening conditions; d) consequences, as particularly appropriate for Grounded Theory studies (Saldana, 2013, p.218);

c) Selective Coding: elaboration into a) a (Selective Coding) *"storyline"* of a connection across categories, or alternatively, b) *"propositions or hypotheses"* stating relationships.

Concerning Axial Coding, thematic directions will be generated, to offer due synthesis and actionable context to empirical findings. From methodological viewpoint, it is possible to refer to the notion of *"Themeing the Data", as extension in analytical depth of the coding process: "…a theme is an outcome of coding, categorization and analytical reflection, not something that is, in itself, coded. …analyzing portions of data with an extended thematic statement rather than a shorter code…"* (Saldana, 2013, p.175). It should be however clearly distinguished, beyond this bibliographic reference, how: a) "open codes" (as emerged from Open Coding) will differ from subsequent b) "Themes" (as emerged from Axial Coding, to be then organized in c) Selective Coding "Storylines" through Selective Coding): *"Ryan and Bernard (2003) noted that the problem of defining a theme has a long history, and many terms have been used to describe what we call themes. The authors go on, however, to define themes as "abstract (and often fuzzy) constructs that link . . . expressions found in text" and that "come in all shapes and sizes" (p. 87). Ultimately, themes should be able to be linked to data points; that is, one should be able to provide evidence of a given theme within the text being analyzed... Codes are applied to the data (often electronically), whereas themes emerge from the data".* (Guest, Bunce, Johnson, 2006, p.77). "Themes" as generated from Axial Coding are once again textual constructs elaborated by the researcher and not empirical data in primary form - in this sense they will be managed in this PhD study.

According to the bibliographic sources leveraged and contextualized in the horizon of this project (adapted from: Creswell, 2013, p.274), the actual sequence of the next chapters about "history", "process" and "products" will be uniform, following to a number of tested questions materializing the iterative nature of the approach:

A) In the first wave (Prefigured Coding), empirical materials (empirical quotes from the primary research interviews) were directly inscribed in existing parameters (19 Prefigured Codes). This led to Open Codes by focusing on relevant fragments of each single quote. Open Coding led to Generative Propositions, by semantically clustering Open Codes into Generative Subcategories. In general terms, this "Open Coding" phase was performed with the background reference of two key questions focused on the "Central Phenomenon" (Creswell, 2013, p.196):

1.1 What was (the history and context / product / process of) city.people.light?
1.2 How did the process unfold (at generic level)?

The purpose is to establish an outside-in view of "research objects", to ensure that such "research objects" (and their history and context) would be further investigated on the basis of a solid empirical foundation. In this respect, the first generic indication of "what" city.people.light is, and how its process "work" provides the equivalent of a baseline. It must be reiterated how these questions did represent a "guiding principle" in fragmenting and tagging the text from original interviews, therefore they are not presented for the purpose of receiving definite answers at the end of each chapter. Answers to these key questions were to be pursued by:

- reflecting on the outcome of Prefigured Coding;
- editing textual empirical materials into Open Codes;
- clustering Open Codes into Generative Subcategories (semantic affinity);
- converting the Generative Subcategories into Generative Propositions by using the Open Codes and the empirical materials as reference to generate new statements, adhering in content but stylistically designed for next steps of grounded theory development.

The textual materials of each Prefigured Coding fragment therefore represented the sole reference, for further optimization at micro-textual level. At visual level, the operational step of Open Coding was performed by means of qualifying the selected textual elements in "**bold**" (intermediate operation that was not recorded or presented in this manuscript) while assigning them; a) a descriptor, related to their content; b) a sequence number, related to the casual nature of their position in the editorial sequence of Prefigured Coding and c) a final textual balanced structure, focusing on the essence represented by that Open Code. Lastly, the systematic clustering on a semantic basis of Open Codes into Generative Subcategories did enable the drafting of Generative Propositions. Where the complexity of multiple or specific Open Codes was leveraged into reduced form and manageable text towards the next wave of coding. Across these steps the most recurring or relevant textual elements was abductively extracted (from the underlined highlight text that represents the final optimized Open Code) and combined into newly defined clusters. Therefore, creating innovative relations across partial segments of the original quotes from the same interviews, with a number of clustering operations to be inevitably performed "behind the scenes" by the PhD researcher: "*The connections among the codes that eventually made up the overarching themes, however, may not have been apparent in the early stages of analysis, or we may have identified several other themes that dwindled in importance as transcripts were added and the analysis progressed"* (Guest, Bunce, Johnson, 2006, p.77). "Themes" will be central to this PhD in terms of analytical value, from the Empirical Section III to the Chapter 9, Conclusions;

B) In a second wave (Axial Coding), with the purpose to further *"…reassemble data that were "split" or "fractured" during the initial coding process"* (Strauss and Corbin, 1998, p 124, quoted in: Saldana, 2013, p.218), as already started with the Generative Propositions. The specific operational approach will be based on the "Descriptive Coding", given the precise ambition to identify the various topics in the data by aggregating portions thereof on the basis of one descriptor. Namely, a few words (Saldana, 2013, p.88). This led to the consolidation and further description of the key characteristics of the "Central Phenomenon" on the basis of the additional coding axial parameters as being formulated as below (as

adapted from: Creswell, 203, 274) in the form of four questions:

2.1 causal conditions: what influenced this phenomenon to occur?
2.2 strategies: what strategies were observed?
2.3 context and conditions: what influenced such strategies?
2.4 consequences: what effect occurred?

The Generative Propositions resulting from Open Coding were therefore analyzed, commented, re-clustered, edited and unified accordingly, leading to newly defined "Themes", in the form of "headline statements" representing either the recurrence of topics, or the relevance of single or rarely reiterated quotes, according to the general definition: *"…overall a theme is an extended phrase or sentence that identifies what a unit of data is about and/or what it means"* (Saldana, 2013, p.175). Transition from codes to Generative Propositions to Themes was managed according to "Code Mapping" principles (Saldana, 2013, pp.194-195-196-197-198), namely listing (first iteration) and clustering (second iteration), to extract and focus specific categories at a "metanarrative" level. Deviating from standard bibliographic prescriptions Key Axial Categories were determined with the strategic approach to address the Key Research Question in terms of history and context (Chapter 6), the Central Phenomenon from the viewpoint of communication product (Chapter 7) and the Central Phenomenon from viewpoint of creative process (Chapter 8). Hence, respectively focusing on "Design", "Book" and "Workshop".

C) In a final third wave (Selective Coding) editing will be employed to capture the outcome of the above coding procedures in a simplified form, to possibly manifest early directions for theoretical development. This step will be limited to the drafting and editing of chapter conclusions for further processing, to be pursued after this section in Chapter 9; according to the three specific Sensitizing Concepts. "Selective Coding", also identifiable as Saldana's notion of *"Theoretical Coding"* (Saldana, 2013, p.223), is not a mandatory step in grounded theory and it is even recommended in literature not to operate any, in case the doubt exists, in order to preserve the appropriate granularity or exactitude of processed data and coded materials: *"A Theoretical Code functions like an umbrella that covers and accounts for all other codes and categories formulated thus far in grounded theory analysis. Integration begins with finding… the central… category…"* (Saldana, 2013, pp.223–224). The key aspect of Selective Coding is linking all coded assets in what Charmaz identified with the analogy of the "spine" connecting the "bones" (quoted in: Saldana, 2013, p.224). The central category engages in what Charmaz describes as a dramaturgic tension (2006, 23, quoted in: Saldana, 2013, p.224). Therefore, a dynamic and dialectic relationship, as extreme synthesis and interdependent verbalization of the various choruses represented by expert opinions, in a process that resembles the one where leaves of tea cease to be leaves, to just *turn into* tea. With respect to the grounded theory and coding methodological references that drive this PhD, this step embodies a mixed method variation as well, depending on the presence, by now in the analysis, of the above mentioned Generative Propositions. Firstly, the theoretical coding alignment cannot pertain codes themselves, whereas the short verbalized structures that embody the propositions, as at this point of the procedure codes will be exploited in their function for generative purposes. Secondly, the purpose of this step is not the

generation of grounded theory yet. Its purpose instead is the systematic re-organization of strings of text into meaning-making units that might simplify empirical-based understanding, by synthesis. Lastly, examples from manuals (Saldana, 2013, p.224) present rather mechanic textual rendering of this last level of findings; the purpose of this deviation in the approach is instead to enable Generative Propositions to actually generate meaningsul text, in order to enable a more immediate understanding of what the cores of city.people.light actually are, according to the constructivist convergence of expert opinions.

The mixed method of this PhD presents some point of deviation from standard coding procedures as reported in methodological literature:

a) determining criteria for Key Axial Category (one keyword):

   In bibliographic references Axial Coding is based on the creation of inter-relationships and interdependencies among codes. This is enabled by reference to a central code that acts as reference and balance point of the analysis. Within this mixed method PhD study the adoption of the axial reference will be governed by a choice of research direction, in order to ensure its productivity with respect to the Key Research Question and with the necessity to address the Central Phenomenon with appropriate pertinence and due depth, on the basis of processed empirical data.

b) nature of axial coded materials and deliverables (Generative Propositions):

   In standard circumstances Axial Coding –as the definition itself illustrates- is performed on codes. In the case of the mixed method adopted for this PhD Axial Coding will not be performed on codes as such but on textual materials at a further level of analytical processing, the Generative Propositions, standing as "posits" of potential grounded theory propositions, in order to operationally enable convergence and synthesis. This is a consequence of the explicit choice made to perform coding procedure starting from the maximum amount of original transcript text in its original form. Therefore, applying the analytical lens on a quantity or quality of lines that required a transitional step to be leveraged for next steps. One might say that adopting the exploratory approach, since conceiving and performing interviews, opened a point of attention with regards to the efficiency and effectiveness of the next steps of the process. The challenge was to include as much as possible out of the generated empirical data for as long as possible in the analysis and yet identifying a precise moment of conversion from such raw data into draft theoretical materials. The twist in methodology adopted by axially cross-referencing propositions instead of codes responds to this point of attention.

Generative Propositions

As articulated above, by aggregating Open Codes as based on their semantic recurrent repetitions, Generative Subcategories were defined as potential topical clusters (the latter being defined as "Design" for Chapter 6, "Book" as communication tool for chapter 7 and "Workshop" as process reference for Chapter 8). Such clustering was performed on the basis of the interdependency of two qualities:

a) the taxonomic weight (quantity of recurring iterations of the topic across the selected transcript materials), in order to tentatively discriminate on the basis of the topical frequency and repetition in interviews;
b) the semantic affinity and/or proximity with the "Central Phenomenon", or single mission-critical elements thereof, in order to tentatively discriminate on the basis of the PhD research priorities and related topical focus of each Open Code.

These two criteria were adopted in order to provide a general framework and a clear governance to the coding procedure. However, they should not be intended as rigid rules for mechanical interpretation as they were deployed to regulate what remained an abductive process.

Generative Propositions were also rated in order to provide an orientation about their intrinsic and functional quality. The PhD researcher adopted an index from 1 (lowest score) to 5 (highest score) and performed three waves of rating of each Generative Proposition statement, based on the following interpretative framework:

Index value 1 = statement is weak
Index value 2 = statement is representative of the Generative Subcategory
Index value 3 = statement is representative and editorially compact
Index value 4 = statement is representative, compact, relevant to the key axial category
Index value 5 = statement is strong for Axial Coding purposes.

Statements classified as Index value 1 represent Generative Propositions, either weaker in conceptual terms or poorer in linguistic terms, with the final effect that their relevance for Axial Coding might be minimal or non-existing. Statements indexed as value 2 are linguistically effective in representing a well-aligned cluster of Open Codes. However the expected conceptual relevance remains relatively low. Index value 3 statements represent optimal linguistic and conceptual qualities, with neutral expected relevance in Axial Coding terms. Generative Propositions estimated at Index Value 4 display these qualities as well, while being tentatively of direct relevance to the key axial categories of design (Chapter 6), book as product (Chapter 7) and workshop as process (Chapter 8). Lastly, an Index value of 5 represents a direct reference to the Key Axial Category of relevance for the specific chapter. Hence, an expected central proposition for its relevance for the next steps in the process. The valuation of each single Generative Proposition was performed in abductive modality, with the purpose to provide one additional, although surely not ultimate, filtering reference to critically reflect on and pre-assess the outcome of coding procedures. This index system does, therefore, not constitute a rigid framework and its valuation might be overruled in the subsequent further analysis, if so dictated. The aim is to enrich the generative process, not to abuse its flexibility and imaginative scope. A parallel step is the de-personalization of quotes by means of removing the original attribution to their respective interviewed expert, replacing her or his full name with plain initials.

Cross-axial Confrontation of empirical findings

Prior to Grounded Theory development and functional to complete the primary research procedures, analytical conclusions will be derived on Cross-Axial Confrontation of empirical findings from Chapters 6, 7, 8. With a number of theoretical constructs as identified in Chapters 1 through 4 with the purpose to crystallize a number of reflection lines responding to the Central Phenomenon in its original synthesis and integrated,

once again, with the actual purpose of the study. The resulting process of Cross-Axial Confrontation will lead to a number of intermediate generative constructs, designed to enable the shift from primary textual materials to the subsequent theoretical development, which will pertain to the "Conclusions" in Chapter 9. This will be editorially positioned and extensively presented in a separate "coda" at the end of this Empirical Section III, ideally bridging the analysis of three coded "streams" by merging findings in one synthesis, clustered by "Design" reference. The purpose is to re-organize analytical insights as developed with reference to History/Context, Product and Process, into preliminary assets for ground theoretical development, with a clear hierarchy in terms of collateral or ancillary or primary relevance and proximity to the Central Phenomenon, to serve as a base for the Conclusions as developed and presented in Chapter 9.

Editorial Strategies

Shifting from methodological concerns to a purely editorial viewpoint, an "outside-in" content progression approaching and exploring the Central Phenomenon and its core (process) is embedded in the content management strategy of Section III, as referred to the selected "research objects". Particularly focusing on DeCerteau's "practice" aspects in line with the theoretical hypothesis elaborated in the first four chapters. Such "outside in" logic will therefore see:

a) introduction of preliminary background analysis (Chapter 6) to "understand" the general context of city.people.light;
b) to then explore the constructed viewpoints of interviewed experts about the consolidated "structural moments" (books as objects) of city.people.light printed in 2007 and, in progress at the moment of the interview, printed in 2014 (Chapter 7);
c) lastly, from these "official" and formalized (therefore structurally consolidated) deliverables, the analysis will shift into the verbal reconstruction of formal processes (how city.people.light programs and events were officially planned in 2006 and 2011-2013) and of informal tactics adopted to "make things work" when appropriate, as a parallel sideline, or sometimes as replacement, of what "rules of the game" might have prescribed instead (Chapter 8).

The "outside-in" perspective is therefore articulated with the ambition to gradually accumulate and build up understanding and insight into the "research objects". Once again with particular focus and priority for the "practice-focused moments" embodying city.people.light principles. This articulation required the full extent of the constructivist episteme at the basis of this PhD study to be leveraged, since no simplification of these multiple viewpoints might render the complex nature of relationships at stake, from creative ambitions to organizational urgencies, from symbolic value to commercial transactions. In the face of any temptation to oversimplify this stream of sometimes converging, sometimes diverging quotes, constructivism instead implies the inadequacy of any analysis of reality that does not take into account the social construction thereof, and implicitly its complexity. With a precise editorial principle: starting from history and context, to move into the core of the Central Phenomenon, while respecting the actual nature of each step.

It should be reiterated how some among the most advanced methodological reflections on social sciences pertain to the sphere of its representation and communication in terms of results and reporting. Being based on a mixed method and being tasked with

the challenge to verbally represent (visual) design phenomena through word-based analysis, the empirical exercise at hand with this PhD thesis requires clear awareness of the risks involved at an editorial level. For example, a primary point of attention was already presented in the previous chapters 1 and 2. There, it was described how the evolution of the postmodern paradigm might coincide with the formal disintegration of social sciences into literature and fine arts, given their distant origins. Focus, however, or better: focus, therefore, is an operational priority in the selection of formatting, presentation and rhetorical approaches for research communication.

From an editorial viewpoint, the next three chapters of this PhD and their Appendixes, will be consciously dominated by the priority to faithfully represent the canvas of opinions, insights and ideas as shared by the members of the purposive sample in the most accurate and literal form. The goal is to provide an immersive sequence to the various moments embodying the formal analysis "around" and "of" "research objects" governed by the coding methodology and extracted from quotes. A "realist principle" will therefore be adopted, as determined by the ambition to leverage quotes in their longest articulation first, including any interjections or repetitions expressed by the single interviewed expert. This background justifies an editorial approach that might be described as characterized by high mobility, agility and flexibility, with iterative and reiterated visitations of the same arguments, topics. Sometimes such approach translates into at different levels of depth, sometimes into the adoption of different angles and viewpoints. From this shared and common editorial line, to be substantiated in all three "empirical" chapters with the same structural format, the coding process will unfold in each chapter to address their different content and priorities. At the same time, narrative continuity will be a second order priority, as the focus is set on written data treatment according to their nature of testimony of verbal exchanges and dialogs. Therefore, resulting at times in editorial fragmentation, being the text tasked with the challenge to represent the interviews in their experienced performance – and not to specifically appeal the reader.

Within progressive steps of coding (starting from the Generative Propositions onwards), in order to generate textual assets that will be appropriate for theory development, specific actors and facts will be rendered in a neutral way. With the purpose to discharge any potential polarization connected to real facts and to ensure the necessary elastic abstractness to empirical conclusions. The following conversions will apply to all coded conclusions (Generative Propositions, Storylines from Selective Coding) within the empirical chapters. Creating a distance between the realism of interviews, quotes and preliminary codes, versus the vocabulary of prospect theory, through theming and advanced coding:

- city.people.light will be referred to as: "the program";
- Philips Lighting will be referred to as: "the business unit";
- Philips Design will be referred to as: "the service unit";
- Philips Corporate and the brand will be referred to as: "the corporation".

For the same purpose empirical insights will be progressively made anonymous. From the direct "plug in" of transcripts, through fully attributed fragments of quotes, to referencing with sole initials in Generative Subcategories. This is functional to the development by the PhD researcher of new propositions that aim at being representative of the quoted textual materials while being, as much as possible, universal in articulation and versatile in value. The purpose is to respect the "degree zero" of research, namely

the face-to-face dialogs with experts, while articulating findings with synthesis and uniformity, to support ground theory conclusions. For a full overview of the actual editorial allocation of each coding procedure and step, the Navigator as provided before the Introduction of this Section III might help as reference.

Graphic Representation of Coding Steps

In the overall coding process, the textual materials as isolated and reproduced from transcripts were filtered as follows:

- firstly when abductively analyzed directly from the transcript;
- secondly, through the Prefigured Codes, identifying coherent units of textual materials, referred to each of the 19 Prefigured Codes, with the intent to filter the entire corpus of expert dialogs, as close as possible to the original conversations, from the thirteen interviews;
- thirdly, identifying the most relevant (by underlining them) and then selecting and fine tuning from those clusters the Open Coding mission-critical fragments of text within the textual unit, therefore setting semantic priorities in the text as is, for purpose of converting Prefigured Codes into Open Coding materials. This intermediate passage is not documented, as anticipated above;
- then, tagging each textual unit on the basis of their "underlined text as highlighted" portions of text, with one or multiple options to define each Open Code, in sequential order of decreasing relevance (e.g., the first "TAG" is the most relevant from semantic or conceptual viewpoint, to characterize the tagged materials), and assigning to each Open Code a reference sequence number;
- furthermore, clustering Open Codes into generative subcategories;
- and then translating each Generative Subcategory into one specifically crafted corresponding Generative Proposition;
- next, leveraging Generative Propositions to interdependently relate the Key Categories "Design" in chapter 6, "Book" in chapter 7 and "Workshop" in Chapter 8, across the four questions that constitute the backbone of Axial Coding;
- lastly, providing synthesis and storytelling continuity to the Themes that emerged from Axial Coding, in the Selective Coding phase, resulting in Storylines.

In the passage from Open Codes to Generative Subcategories the identification of the interviewed expert shifted in notation style, from her full name and surname to her initials only. This was enacted with the purpose to underline the progressive shift from personalized viewpoints towards the generation of neutral categories and universal propositions to enable the development of Grounded Theory. Within Generative Subcategories, the following conversion table from name to initials will apply:

SM = Stefano Marzano, fr. CEO, Philips Design, Eindhoven, The Netherlands
TR = Tapio Rosenius, Founder, Lighting Design Collective, Madrid / Helsinki
RH = Rogier van der Heide, Chief Design Officer, Philips Lighting, Eindhoven
RS = Rik van Stiphout, Programme Advisor Light & Culture, City of Eindhoven
LG = Lorna Goulden, Director, Creative Innovation Works BV, Eindhoven
OP = Oscar Pena, Global Creative Director, Philips Lighting, Eindhoven
KB = Kristin Bredal, Founder, Zenisk, Oslo, Norway
NH = Nils Hansen, Senior Manager, Philips Lighting, Eindhoven
LT = Laura Taylor, Creative Lead Innovation, Philips Lighting, Eindhoven
JP = Jasmine van der Pol, Lighting Designer, AF Lighting, Copenhagen, DK

DS = Dorota Slawinska, MarCom Manager, Philips Lighting Poland SA, Warsaw
FP = Fernand Pereira, Head of LIAS/Specifiers, Philips Lighting, Lyon, France
JS = Jos Stuyfzand, Senior Creative Director, Philips Design, Eindhoven

Within Chapters 6, 7, 8, single codes will be solely edited and fragmented for exceptional editorial reasons, when leveraged by insertion into dedicated initial paragraphs reporting the most general overview of findings, at the opening of each chapter. There, storytelling urgencies prevail in effectively and efficiently providing an overview of findings, hence the isolation of specific constituents in any code might be performed. To enable the expression of full analytical rigor and operational transparency each "fragment" will be referred, with the code itself, the name of the interviewed expert and a code-unique sequential numeric identifier. Hence, it will be possible to trace back anything related in the Appendix. This editorial compromise will guarantee an appropriate content management for reporting purposes across the tidal wave of data generated at primary level and treated in the first cycle of coding. At the same time, such approach will at least mitigate the undesired collateral effect of inevitably manipulating, however respectfully and consciously, the primary materials for editorial purposes.

The following example anticipates and displays the entire coding procedure, starting from a random quote of Chapter 6:

A) CODING FIRST STEP: PREFIGURED CODE:

Extraction from transcripts, fragmenting and attributing textual materials through Prefigured Codes:

1) BASICS
6.5 Financial Ownership

"I think in those days it was even more clear between the functions, what Design did, what – You know, Marketing did more – was more about the immediate MarCom and Sales in those days and then technology. So, in that sense Design did that kind of strategic marketing role in those days. Ja, what made it – why could not anyone just run it? Well, in a – the first one – the participants were all designers, and then in the 2006 workshop, the participants were not - but it was facilitated in the creative process". –
Laura Taylor

B) CODING SECOND STEP: OPEN CODE:

For reasons of editorial synthesis and continuity, the Open Codes will be provided in their totality exclusively in the form of their semantic identifier and sequential number:

6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY)

In the passage from Open Codes to Generative Subcategories, only the **bold back** highlight part was considered as central in semantic terms, as per the following example:

OPEN CODE:

6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY)

"…in those days it was even more clear between the functions, what Design did, what … Design did that kind of strategic marketing role in those days. ….the participants were all designers, and then in the 2006 workshop, the participants were not…". – LT

The passage can be implicitly elicited from the results (Open Codes) and will therefore not be documented in the Appendixes.

C) CODING THIRD STEP: GENERATIVE SUBCATEGORY:

Generative Subcategories will be extracted from the Open Codes by means of clustering and re-aggregating the content in terms of theming and affinity. Generative Subcategories will not be semantically treated as it was an explicit choice to maintain their classification limited to the sequential identifier (in this case, Generative Subcategory 6.4):

Generative Subcategory 6.4:

6.1.4 CROSSROADS DESIGN VS. RESEARCH (CONTEXT)
6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY)

6.1.4 CROSSROADS DESIGN VS. RESEARCH (CONTEXT)

"…a number of programs that actually run at the crossroads of design and research. …they do take into account actually the information out of city.people.light". – RH

6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY)

"…in those days it was even more clear between the functions, what Design did, what … Design did that kind of strategic marketing role in those days. ….the participants were all designers, and then in the 2006 workshop, the participants were not…" – LT

More than "transitional objects", Generative Subcategories are "transitional clusters", as they only aim at connecting and integrating the essence of quotes, already identified in specific codes towards the ultimate analytical synthesis of Generative Propositions. The main difference between these two analytical structures is that subcategories still include the original text from quotes, therefore the "voice" of interviewed experts is still directly represented as available in transcripts. Generative Propositions were instead drafted by the PhD researcher. Their intent is to provide synthesis as novel textual material. Their purpose is to "*stand for"* the Generative Subcategories as generalizing statements with theoretical development potential. One can therefore speak of point of departure between empirical materials and actual editorial elaborations. The PhD researcher already exercised a drastic inferred selection, whereas propositions are newly formulated verbal structures, exclusively created by the PhD researcher in their totality. Although with the effort to maintain keywords, hierarchies, nuances as recorded in the codes, observed in the transcript, remembered from the face to face interviews, as per

the following example:

D) CODING FOURTH STEP: GENERATIVE PROPOSITION:

Generative Subcategory 6.4:

6.4 Generative Proposition (5):

Design generates a program with hybrid elements from R&D (research) and strategic marketing, progressively opening it up in its second edition to external stakeholders.

6.1.4 CROSSROADS DESIGN VS. RESEARCH (CONTEXT)
6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY)

Generative Propositions are always formulated in the present tense as they will be the starting point of grounded theory development by being selectively exposed to Sensitizing Concepts, in Chapter 9.

E) CODING FIFTH STEP: SELECTIVE CODE:

Selective Coding is the last procedure of analysis within this PhD. From the original transcripts, through Prefigured Coding, Open Coding, Generative Subcategories / Propositions, Axial Coding, the axial "Themes" are now clarified in terms of priorities and accents. To do so, within this step, the "selection" will be simply operated by reporting all Generative Propositions, as clustered above and organized in separated blocks of text according to a plain re-organization into continuity. Priorities are set by specifically selecting which Generative Propositions should be positioned at which point in the novel sequence of text, on an abductive basis. In order to do so, the analytical system of identification and indexing is removed, so that the verbal structures can now breathe in their own life as semantic signifiers. The outcome is a coherent text with intrinsic continuity. Where all Generative Propositions are included in their original form, prioritized and edited into a final flow that represents both the first step in terms of grounded theory elaboration as well as the ultimate moment of synthesis in the empirical analysis, from nearly a hundred pages of transcripts to the efficiency and effectiveness of a clear half page.

Editorial Presentation: Appendixes

In Appendix A, it will be possible to review the Prefigured Codes complete with their preliminary underlining of text fragments (transitional textual selection from transcripts). In Appendix B, it will be possible to review the Open Codes in underlined text, as clustered in Generative Subcategories. In Appendix C, Generative Propositions will be reported. In the first phase of coding transparent reporting of any detail, including names or references and direct attribution of each quote to its matching interviewed expert, are key. In terms of editorial presentation the first steps of what will be clarified as Open Coding, namely the Prefigured Code processing and the Generative Subcategories formation, will be provided as Appendix only. In order to maintain the flow of Chapters 6, 7 and 8 of this PhD study within functional levels according to reason. In such Appendix,

it will be possible to examine the original transcript text being filtered through the Prefigured Codes; the resulting Open Codes being listed as part of their respective Generative Subcategories, and the resulting textual materials being further segmented with respect to semantic potential for aggregation into Generative Propositions by means of progressively and repeatedly fragmenting, clustering, underlining, highlighting in underlined text and ultimately tagging. Additionally, a third Appendix will be included to summarize and present the Generative Propositions that represent a) the conclusions of the Open Coding phase and b) the necessary building blocks for Axial Coding. In order to provide the entire overview of all coding procedure passages that will be reported in Appendixes, the following short list will apply:

a) Appendix A: original transcripts as textual materials being filtered through Prefigured Codes, generating Open Codes, identified by semantic marker and sequential number: the Appendix A will present the Prefigured Codes with pre-selected underlined clusters, yet to be optimized in underlined text;

b) Appendix B: fragmenting and clustering of Open Codes, into Generative Subcategories, identified by sequential number;

c) Appendix C: Generative Propositions (new text edited by the PhD researcher), on basis of Generative Subcategories (clusters of Open Codes).

Additionally, an Appendix D will include the original expert interview item list.

By navigating the three appendixes A, B, C in sequence, it will therefore be editorially feasible to follow the entire coding procedure in its step-by-step impact on the transcript materials. Lastly, one might reiterate that at the level of preliminary coding all quotes will be maintained intact in their verbal nature with pauses, imperfections and other evidence of the real life source.

CONCLUSIVE NOTE

To summarize, this introduction was devised as a means to contextualize and anticipate the analysis of empirical data that will follow in the next three chapters. At editorial level, the overview of the editorial sequence selected for these empirical Chapters 6, 7 and 8 will follow an "outside-in" logic construction, according to an iterative process. Addressing history and context, then the 2007 and 2014 books as main concrete "structural manifestations" of the city.people.light program, to move to the 2006 and 2011–2013 "process practices" analyzed in Chapter 8. It should be reiterated how the researcher behind this PhD study did abductively generate and editorially describe operational decisions and interpretations to iteratively edit, align and, where appropriate, connect these different domains. Between *abduction* and the third space of liminal reflection editorial and styling choices were made to adhere to the translation and amplify the plastic articulation of DeCerteau's theoretical categories of "structure" and "practice", here to be intended as structural moments and practice-oriented moments, at the theoretical heart of this PhD project.

In this Section III, "Coding" of transcript materials will be executed in three "waves". These waves will entail a progression from Open Coding to Selective Coding, through to the mission-critical step of Axial Coding. In analytical perspective, ancillary benefits

associated with progressive coding at research strategy level include but are not limited to the following overview of key points:

a) at Open Coding level, the generative nature of this exercise (although indirectly referred back to the interview item list) did enable the identification of anticipatory clusters of perceived meaning and collectively shared narrative statements (Generative Propositions) in the discourses around city.people.light and its indirect output (other projects);

b) adhering as much as possible to conversation flows is a clear intent of Prefigured Coding, once again with the aim of reflexively preserving the integrity of the face to face conversation flows and their transcript as most faithful testimony to the open, semi-structured, exploratory nature of such dialogs performed at early stage of the project;

c) in operational terms, Prefigured Codes will represent the emergence of preliminary directions straight from primary quotes organized through abductive review through the reference framework of the original questionnaires. Hence, providing an intermediate level of coding that will capture the organic essence of research practice. "Prefigured Codes" are coherent content units. Related quotes are clustered according to an emerging textual logic;

d) the use of early "Prefigured Codes" in a generative process determined an organic discovery in the materials between implicit and explicit knowledge, and between content and framework. This coding effort was complementary, yet different than the definition of "Sensitizing Concepts". That instead will help to inject, into Chapter 9, the richness of earlier theoretical elaborations into the action of the analytical practice;

e) preliminary analysis was, therefore, conducted on the basis of the interview item list and its actual execution as face to face verbal dialogs with experts. In order to ensure compactness, consistency and continuity to the PhD thesis report as a whole research product. The item list requires counterbalancing to prevent the possibility that empirical findings end up mirroring theory, hence destroying the generative ethos intended;

f) Prefigured Codes were generated, in the number of 19, from elaborations of theory from Chapters 1 through 4, interview item list and were then operationally clustered in: "Basics" (six generic interview parameters pertaining key outcomes, key performance indicators, unique propositions, pre-event and post-event applications, the educational value of the program, financial ownership) and "Futures" (five generic interview parameters about innovation horizons, foresight rationale, foresight techniques, technology). It might be appropriate to describe the combined purpose of these two editorial clusters as introduction to the constituencies and the characteristics of city.people.light. Next to these two generic codes two additional Prefigured Codes will connect the analysis more to "research objects", e.g. future studies, design and network theory, resulting in two editorial clusters focusing on "Product" (books, storytelling, concepts, symbols) and "Process" (Customer Relationship Management, Participation, Openness, Networks);

g) The intermediate textual materials ("transitional objects", as defined by Charmaz) did result in the clustering of Open Codes into Generative Subcategories. Such subcategories were then be processed in terms of semantic analysis, in a specific effort, driven in first instance by theming as the reference approach. To then move to the re-aggregation of primary research data clusters (Generative Subcategories) under the "categorization umbrella" of "Generative Propositions";

h) In Chapter 6 the analysis will focus on history and context of the "research objects"; in Chapter 7 and 8, the core analysis will focus on the products and processes characterizing the 2006 research / 2007 book and the 2011–2013 research / 2014 book. From this perspective, the preliminary sketching of Chapter 6 will therefore solely enable to leverage relevant insights and quotes from the primary research transcripts that pertain the 1996 research / 1997 book and / or companywide or collateral projects, not to be included in the core analysis because not directly referred to its objects;

Selective Coding did generate conclusions for each chapter in the form of Selective Coding Storylines to then be filtered in Chapter 9 through the eyes of the three Sensitizing Concepts as emerged from theory, functional to PhD research question, as the starting point of any conclusion or theoretical elaboration. This is based on the hybrid nature of the mixed method defined for this PhD research project; as the convergence of "constructivist conclusions" (converging consensus of interviewed experts through coded findings) here extracted from primary data by means of Grounded Theory principles, might therefore be complemented, in Chapter 9, by additional theoretical reflections, grounded in coded extractions from primary research data. In concluding this introduction, the overall structure of each chapter will therefore present with regularity through repetition, the following coding deliverables:

- a) codes: as abductively extracted from major textual clusters within transcripts (in appendix for editorial economy purposes) through Prefigured and Open Coding;
- b) generative subcategories: as obtained by re-organizing topical clusters of codes into the synthesis of a simplified editorial structure (generative proposition), capturing the essence and bridging towards the development of Themes and grounded theory;
- c) Themes: as determined by re-combining codes through Axial Coding;
- d) Selective Coding Storylines: as edited by organizing specific Themes into textual narrative sequences, in the form of conclusive notes for each chapter.

The actual primary research materials as fragmented and processed by means of coding procedures will be available in Appendixes A, B, C, D. Each chapter will follow the same structure, however specifically addressing a separated topic in full independence. Additionally, a crucial differentiation must be reiterated once again, in terms of the actual value of the Codes, Generative Subcategories, Generative Propositions, Themes and conclusions of Chapter 6 with reference to the "Central Phenomenon". Because Chapter 6 will address "History and Context", its deliverables should be considered as merely introductory and direction setting for the coding processes to be performed in Chapter 7 and 8. This is because Chapter 6 will describe the "roots" and the landscape of the "research objects", not the "research objects" themselves. In a purely fictional narrative order one might say that the quotes and codes emerging from Chapter 6 would therefore be considered the "prologue" to the real "story" of this PhD. Namely, the "products" and

the “process” analyzed in Chapters 7 and 8 as “research objects”. Having established this key differentiation among the next three chapters, a point of alignment among them will be the constructivist episteme, with its implicit license of leveraging *abduction* where appropriate. The “research problem” empirically addressed is centered on the rationalization and description of a number of statements by clustering and coding: *“…actions …feelings …explanations… Grounded theory coding fosters studying actions and processes… ”* (Charmaz, 2014, pp.112-113). From sociological and cultural viewpoint coding was deployed in order to explain how the (design-driven) generation and communication of visions, scenarios and products is enabled, capturing (visually simplified) urban futures concepts. As already introduced, a generative approach will be adopted with the ambition to create the conceptual platform to enable, in Chapter 9 (“Conclusions”) ahead, the emergence of phenomena in a third space of “liminality”, across structural moments (products) and practices (processes).

SECTION III
EMPIRICAL ANALYSIS

CHAPTER 6
CODING: THE CONTEXT AND HISTORY OF CITY.PEOPLE.LIGHT

NAVIGATOR

- to be expected in chapter 6:
  "history and context" prior and around the "research objects": Open Coding; Generative Categories and Propositions; Axial Coding (key axial category: "Design"); Selective Coding.

- references from earlier chapters that enable understanding of the chapter:
  Chapter 4 (High Design, city.people.light, urban futures matrix), Chapter 5 (epistemology and methodology for primary research), Introduction to Section III.

- position / role of the chapter in the PhD study overall sequence:
  empirical / analytical, with focus on primary data processing.

- why the chapter is relevant:
  providing key empirical findings from primary research.

- to be expected after this chapter:
  grounded theory empirical analysis of "research objects" (products, processes); Section III Cross-Axial Confrontation (cross-referencing of empirical findings).

CODING EDITORIAL SEQUENCE
Empirical Data: 13 Expert Interviews (Purposive Sampling) based on Item list

Section III, Chapters 6, 7, 8, plus Cross-Axial Confrontation
Three Coding Streams: 1) History / Context, 2) Product, 3) Process

First Step: Prefigured Coding (History / Context, Product, Process)
(based on Item List, in order to fragment transcripts)
Outcome: ***Prefigured Codes***, Appendix A

Second Step: Open Coding (History / Context, Product, Process)
(based on Prefigured Coding content, prioritized to generate Open Codes)
Outcome: ***Open Codes***, Chapters 6, 7, 8 and Appendix B

Third Step: Open Coding (History / Context, Product, Process)
(based on Open Codes, clustered to form *Generative Subcategories*)
Outcome: ***Generative Propositions***, Chapters 6, 7, 8, and Appendix C

Fourth Step: Axial Coding (History / Context, Product, Process)
a) Based on Generative Propositions.
b) Analyzed by mean of three Key Axial Categories; Design, Book, Workshop.
c) With constituencies; Causal Conditions, Strategies, Context, Consequences.
Outcome: ***Themes***, Chapters 6, 7, 8

Fifth Step: Selective Coding (History / Context, Product, Process)
(based on Generative Propositions, aggregated).
Outcome: ***Storylines***, Chapters 6, 7, 8

INTRODUCTION

In Chapter 6, the visions, ideas and opinions recorded, into transcripts, in primary interviews will be leveraged to engage in a generative process of coding, theming and selecting between the topics of "History" and "Context" of city.people.light:

*- **history and context** of city.people.light programs, as research-based phenomenon, based on the initial claim that city.people.light is an application of the High Design approach, The latter being a specific proprietary people-focused, future oriented, design management process by Philips; with a key category focusing on "Design" as a general reference to the key research problem governing this PhD;*

The central axial category for Chapter 6 will be "Design", according to the Key Research Question governing this entire PhD project, in order to establish the historical and contextual shared interpretation of the role of design in city.people.light, with any other relevant constituency of city.people.light as identified in the coding. It must be added that a first draft version of this chapter (January 2015 to April 2015) was edited by means of sequential extraction of quotes and direct comment within the Prefigured Coding grid of 19 items, as an experimental step to verify the convergence and thickness of preliminary findings and after several rounds of review with the promotors, it was concluded that such an approach would result in a dispersive and generic analysis, therefore it was editorially dismissed (July 2015).

Firstly, it should be reiterated that Chapter 6 will describe the context and the history of city.people.light in its wider perspective, not addressing the "research objects" specifically. From a strict research rationale and content viewpoint, such history and context of city.people.light will supply preliminary directions (e.g., prioritization criteria, advanced hypothesis to test), to be further developed in Chapters 7 and 8, on the actual "research products". The chapter will be focused on specific structural moments and processes:

a) the 1996 - 1997 first edition of the global study (that does not constitute part of the "research objects" neither for its products nor for its processes);
b) a number of collateral and ancillary projects (2008 Eindhoven Strijp Lighting Masterplan by Philips Design; 2012 Architects of Light by Philips Lighting Poland SA), the latter considered in all its parts excluding the 2013 Wroclaw workshop (integrated in *"Create the Livable City"* 2014 book);
c) the deployment of follow up actions to the city.people.light programs.

Based on multiple coding procedures as introduced in the section general orientation above, the analysis of this chapter will be introduced by a short review of the actual "sequential findings", namely the encompassing findings for the totality of the Open Codes. A synthesis thereof is only proposed for the purpose to leverage a selection of quotes in compact and dynamic introductory statements and an overview of key insights. It is proposed, purely as a reference, between raw data and actual coding findings. The coding report will be enriched by direct quotes, extracted from Open Codes, for the pure

purpose of editorial actionability and continuity. Each of these Open Coding textual units will be numerically identified in a sequential fashion and fully attributed, in order to enable at any time backtracing in Appendix A, with reference to the Prefigured Codes including greater fragments than the Open Coding final form. The next step in the coding process is to dynamically cross-reference findings. This means extracting the primary research data aggregations that will constitute the Themes towards Selective Coding. Prefigured Codes are divided into four "editorial clusters" (Basics, Futures, Product, Process), where the specifications of each individual code emerged from preliminary processing of primary data, reiterated in multiple ways. At the end of the process the resulting codes generate propositions that are not referred to as theoretical notions anymore as the outcome of Prefigured Coding represents the crystallization of empirical views by interviewees.

Unlike the next two chapters, due to the professional non-involvement and physical absence of the PhD researcher from any historical event related to 1996–1997 and from the Strijp Masterplan project by Philips Design, from the very start the empirical analysis of this Chapter 6 did rely on a very limited archive of extant documents. The PhD researcher was, instead, partially involved as an external consultant (limited to three workshops out of five: Sierpc, Lodz, Wroclaw) with "Architects of Light". The Polish national program deployed in 2012–2013, therefore personal observations might apply there in terms of memos, memories and any other form of implicit or explicit recall. The total overview of empirical materials, including interviews, will therefore include:

- 13 interviews with qualified respondents performed in Nov/Dec.2013
- book as published in 1997 with design sketches and analysis, including Philips Design sketches
- internal research report by FutureConceptLab on the Urban Futures Matrix, developed by Francesco Morace and Josephine Green, for Philips Design;
- "Architects of Light" concepts for the Wroclaw workshop (2014) as printed in the *"Create the Livable City"* book (research object). This is presented as background knowledge only and any analytical reference to these concepts will be made in Chapter 7
- "Architects of Light" visual image bank related to Sierpc, Lodz, Wroclaw, plus general publications and information related to the overall 2012–2013 program, directed by Dorota Slawinska, Marketing Communication Manager, Philips Lighting Poland SA
- "Architects of Light" personal memos, memories or recollections by the PhD researcher
- Strijp Masterplan by Philips Design for Eindhoven: "black book" and "grey book", namely the experience masterplan (with references to city.people.light 2007 sketches) and the technical applicative guidelines. Delivered under the design direction of Lorna Goulden, former Design Director, Philips Design, on commission by Rik van Stiphout, Programme Advisor Light and Culture, City of Eindhoven, and awarded by IF for its design excellence.

The materials and references at the basis of this chapter are divided in terms of history (1996 processes and 1997 city.people.light book) as antecedent to the actual "research objects", representing its historical foundation, and in terms of being complementary as context (2008 project for the City of Eindhoven and 2012 – 2013 national Polish program) as ancillary, derivative or ancillary to the "research objects". For this chapter, an additional differentiation among Open Codes is therefore determined by the

distinction between a) "History" (codes that pertain the 1996–1997 global program of city.people.light) and b) "Context" (codes that pertain the 2012 Polish program "Architects of Light", the 2008 Strijp Masterplan by Philips Design for the City of Eindhoven and a number of collateral, ancillary and follow up activities and projects). Because the analysis was conducted on the basis of achieving synthesis in a process from a great number of data units (quotes) to a limited set of Generative Propositions, such distinction "History versus Context" is purely informative and does not have any operational implication or procedural impact. These two additional ancillary tags are signaled between brackets at the end of each single Open Code in this chapter and only in this context they will apply, offering additional granularity to the texture of the analysis.

Chapter 6 will be framed in the following editorial execution, supported by a number of features, operations and procedures:

- coding from interviews (primus inter pares) specific for Chapter 6
- analysis of the Open Coding preliminary insights
- Axial Coding, based on the analysis of Generative Propositions
- Selective Coding
- conclusions, as a final wrap up.

It might be concluded that Chapter 6 will offer an overview "around" the actual objects of PhD research, as specified in Chapter 5. These "objects" will be dissected in Chapters 7 and 8, however they do not exist in a vacuum. It is the task of this chapter to provide the necessary stage for "research objects" to play their role as protagonist with due depth.

6.1) OPEN CODING: HISTORY AND CONTEXT

As anticipated in the above introduction to the empirical chapters, the first step in the coding process is to dynamically extract the primary research data aggregations that will constitute the building blocks of generative materials (subcategories, propositions) and therefore of axial Themes towards Selective Coding. Prefigured Codes, as defined on the basis of the theory from Chapters 1 through 4, and interview item list (itself derived from theory), were divided into four "editorial clusters" (Basics, Futures, Product, Process). The first two clusters of Prefigured Codes (Basics, Futures) provided a preliminary overview of the city.people.light programs, products and approach in bottom up quotes. Such overview included interview transcripts pertaining the nature, the key deliverables, the key performance indicators, the uniqueness and value, the financial and managerial ownership, the extensions into CRM and applicative projects. In the subsequent two editorial clusters of "Prefigured Codes" (Product, Process), the analysis aimed at shifting focus beyond plain "icebreaking", into more specific details. No conceptual or content differentiation exists between these editorial clusters, grouping the Prefigured Codes on the basis of their affinity and content, for efficiency and effectiveness purposes only. The specifications of each individual code emerged from preliminary processing, for the purpose of filtering primary data, reiterated in multiple analytical waves. In a plastic fashion transcripts were reviewed, fragmented and re-clustered. The Open Codes resulting from such process were then individually identified by means of a semantic definition, related to their content, and given a sequential neutral number, to keep the analysis neutral. One might recap the process so far as follows: Prefigured Codes are conceptual elaborations of bibliographic findings, organized in an efficient and effective functional grid of 19 codes. Prefigured Coding is the process of

semantically fragmenting the 13 transcripts into textual clusters where further analysis (abductively) generated Open Codes. The resulting Open Codes are solely emerging from primary research materials, as the start of the generative process that will lead to Grounded Theory. In synthesis, these "Prefigured Codes" offer a first analytical insight on potential self-aggregation and bottom up clustering of retrieved data through expert dialogs, which was instrumental to the Open Coding process for Chapters 6, addressing the Key Research Question:

"How does a design process help to envision (preferable) futures for cities, under postmodern conditions?"

As anticipated, the focus will be kept on "design" as synthesis of the Central Phenomenon, connecting research objects to the Key Research Question. The specific framework questions to be used as implicit reference during Open Coding ("Prefigured Codes" processing and formation of "Generative Subcategories" based on semantic analysis, as a backbone of Generative Propositions) are:

1.3 What was "design" in city.people.light, historically and contextually?
1.4 How did the design process unfold (at generic level)?

The purpose is not to answer these questions in a mechanical way as their specific role is to provide and maintain a sense of direction in the overall quest for synthesis. Preventing the quantity and quality of raw data translating into a roadblock. In these Open Coding clusters also lies the opportunity to highlight internal complexity and contradictions of city.people.light as symptoms of a possibly wider relational dynamics beyond isolated remark or incidental observation with a granularity that will inevitably be lost in the next steps of the coding procedure, for sake of synthesis. It must be once again specified that, in procedural terms, while the three Sensitizing Concepts will constitute guiding references in the conclusions of Chapter 9, within these 19 Prefigured Codes and more in general through the entire coding procedure, from open to Selective Coding, such theoretical constructs will remain inactive. Constituting the basis for a next analytical passage towards grounded theory development. The taxonomy of Prefigured Codes and their actual was fully presented in the introduction to all empirical chapters and will hold valid for all three empirical chapters, therefore it will not be reiterated in chapter 6.

6.2) OPEN CODING: PROCEDURE

Transcripts were reviewed multiple times from different viewpoints following abductive principles and also leveraging implicit knowledge available to the PhD researcher, as based on his former corporate and consulting roles. Quotes were then filtered through the Prefigured Codes, as a first way of orientating through the primary research data, to then be specifically "tagged" as Open Codes according to their semantic content and its intrinsic prioritization. The resulting overview of this first coding step, namely Open Codes, available as full text for each of the actual codes in the Appendix, segmented in layers by a) underlining most relevant lines and then b) highlighting in underlined text style the most relevant underlined text for the analysis among the relevant fragments. Quantity and quality of text within individual quotes was not fixed, e.g. limited by a specific word count, as the editorial and research intent was to privilege rendering the quality of conversations and representing either the articulation of a complex viewpoint

or the vibrancy of an individual statement in the form of a punch line. Textual segments were therefore sometimes converted into draft or final quotes even if very long or complex. In such cases, multiple reference to more potential topics included in the quote resulted in Open Codes expressed by more complementary keywords. The complete overview of direct primary research data in their status of transitional text (prior to final fine tuning into Open Codes) is available for consulting in Appendix A of this PhD study, as demonstrated at the end of the Introduction to Section III above.

6.2.1) Open Coding: Early Findings Overview

Within the constructivist epistemic, the convergence of viewpoints, opinions and insights as recorded in the interviews and filtered by coding. The city.people.light program, as an "object", is identified as associated to the following items and qualities, in terms of its history and its context, as based on semantic analysis of Open Codes:

a) insights generation, based on interviews with thought leaders;
b) generation of an innovation product roadmap;
c) networking expansion for CRM purposes (switcher);
d) design leadership as key enabler;
e) brand theming for (strategic) marketing purposes, e.g. re-positioning;
f) educational ambition and perceived uniqueness;
g) governed by a urban futures matrix (created by FutureConceptLab)
h) delivering (Philips Design generated) sketches as output;
i) establishing a dialectic relationship with technology (high tech vs. design);
j) generating a number of unplanned spin offs over time.

The general storyline is one of meaning-making and simplification for relevant target audiences, based on anticipating critical urban challenges and with the ambition to achieve a factual impact by means of a multipurpose strategy focused on future insights generation, thanks to means and tools typical of design leadership: [6.11.5 INSIGHTS/TECHNOLOGY/DESIGN (HISTORY) *"…the intent was more to provoke the business of lighting and lighting to actually be confronted with ideas, conceptual ideas, of new solutions that would have been challenging and provoking and the traditional, or the technology of that time. So by actually liberating an insight about also the new challenges of the city, by capturing also an insight of the architect that where actually thinking of, dreaming about, new visions and new solutions -- what actually we did visualize were concepts and solutions that were challenging the current status of technology, and therefore pushing for new questions in terms of new technology and lighting technology. And, so the, the objective was -- the want to, indeed provoke a transformational, a transformational innovation - to provoke a, let's say, a new understanding of what actually would have been relevant to research in order to create a new competitive, innovative advantage …Design was taking a leadership in showing that there were available insights - we had new insights, or anyway insights that were giving the opportunity to create solutions that were not available before, in terms of ideas. And that actually these ideas were challenging the existing technology to further develop or to open up new spaces of research to create, let's say, the opportunity to realize this new concept and this new thinking. Eh, so in a sense it was a very, let's say, provocative and creative push to develop new technology roadmaps"* – Stefano Marzano *(on 1996)*]. The early indication that emerges from primary research findings is that city.people.light programs are knowledge intensive as practice-based exercises. With however, increasingly lower impact at higher modalities of knowledge leverage (Horizon 1 being

more impactful than Horizon 3). At preliminary level, it was possible to identify as key "historical" consolidated outcome items: a concrete editorial product (book) [6.1.15 BOOK (HISTORY) *"…the relevant knowledge is captured in the book… the highest level of usable knowledge was in the -- in the book. And of course the book was the synthesis of what actually was collected…"* – Stefano Marzano], supported by collateral materials and actions (presentations, webinars, meetings) and an abstract yet fundamental profiling asset (thought leadership, leading to relationships): ["…*But I do have the white book, so I can see the sketches from there. […] I received the book, I received the presentation, I also received a lot of PowerPoints…We were also trained – I mean not trained but it was also deployed by webinars, internal webinars in the company".* – Dorota Slawinska *(on Philips Lighting Poland SA)*].

Innovation roadmaps and program spin offs were also in the blueprint of city.people.light, with examples thereof as recorded in the interview transcripts include; product innovation lines like the versatile Metronomis (late 1990's) for city beautification or consulting projects like the Strijp-S public lighting experience masterplan by Philips Design (2008), and more, with positive benefits in both strategic and marketing terms: [6.1.8 ROADMAP/INNOVATION LOOP/DESIGNER (CONTEXT) *"…you know, our products are not favoured by all designers, and that is also not necessary, but we can be favoured by more designers, stakeholders, if we simply do more interesting products. I think it is the key in the relationship between a manufacturer and a – and a specifier. And I think it's often misjudged, because// […] Well, the loop makes the product – the products more interesting and more relevant […] So it is very key – it should be to our strategy. To do this kind of things. But, you know - from my experience, I can only tell you, that I always wanted to work with the manufacturers who just make the most exciting stuff".* – Rogier van der Heide *(on the general approach)*].

Within this context one might speak of hybrid knowledge as overall output, knowledge that fits with the strategic yet incremental change required by the enterprise, while it already pertains a more organizational, and therefore possibly cultural dimension. Furthermore, it seems to be a consolidated ambition that the educational dimension of city.people.light is expressed through its events as a strong element of its uniqueness: [6.4.1 EDUCATIONAL (CONTEXT)*"I would rather say it is some sort of – it's – it has more dimensions, right? Not only design process, it also has an educational influence, an inspirational impact".* – Dorota Slawinska *(on Architects of Light)*]. At least since the second half of the 2010's, with "Architects of Light" in Poland, such ambition has become an integral part within the city.people.light narrative discourses. Whereas, earlier it appeared to be more dispersed, void of an actual structural synthesis. The level of recall and continuity that can be detected in the Open Codes might indicate that such educational value is an additional point of perceived uniqueness of city.people.light. More extensively, after having touched upon several points anticipating topics of the next paragraphs and codes, it is possible to anticipate that value was identified in a number of programs explicit and implicit deliverables, including the following assets generated as outcomes of the program:

- thought leadership developed on behalf of Philips;
- relationships with external thought leaders, through a proprietary platform;
- knowledge, at different levels of the taxonomy derived from Habermas;
- the book, as final collector of visual materials and socio-cultural analysis;

Of course, these were not the only results of city.people.light programs or events.

Additional outcome benefits emerged from indirect respondents' quotes, e.g. a series of urban design mock up's created in 1998 for a launch event in Paris event or in 2011–2013 as part of the Polish creative workshops. Those presented in Paris might be particularly interesting because they represented a moment of negative criticism by stakeholders (e.g., architects), who identified them as an attempt of a manufacturer to exceed their role, invading the urban design creative arena. As an opposite approach, the mock-ups executed as part of "Architects of Light" in 2012–2013, did not generate such a negative outcome, as they were the conception and realization by stakeholders directly, based on the contributive approach developed in city.people.light since 2006.

Other deliverables were actually generated but not mentioned at all and exist in the archive and to the awareness of the PhD researcher because of his "insider" role and involvement in the actual applied program, e.g. the intermediate research report by FutureConceptLab that appeared a crucial milestone especially in 1997, as a "scientific backbone" to the first book. Within the actual interviews there was no major reference, either direct or indirect, to these research reports, which appeared unaccounted for in archiving terms. In general, the corporation and the business unit neither engage in curatorial conservation of their key manufactured or intermediate products. Nor in systematic historical recording and archiving of documents, resulting in relative short term "collective memory" being officially and formally available for consultation. Pockets of informal knowledge exist in the form of personal memories and personal archives, sometimes boxed in warehouses for spatial limitations of current office layout: [6.12.4 BOOK / SKETCHES (CONTEXT) *"I am not aware where the archive is, but I know people who are dealing with that, and they are still alive*. [laughs] *….."* – Dorota Slawinska *(on Philips Lighting Poland SA)*]. As a working hypothesis this might be, perhaps, an indicator of how the socio-cultural component of the program remained slightly in the shadow with respect to the public communicated products and to the design visionary sketches and concepts.

The Key Performance Indicators connected directly to city.people.light 1996 and Architects of Light 2012–2013 were identified as follows:

a) delivery of the city.people.light book (1997) and collateral Paris event;
b) NPS key performance indication ("Architects of Light", 2012 – 2013);
c) budget management within assigned financial cost parameters (1996 – 1997);
d) specific number of products to be generated by roadmap and innovation loop;
e) a number of additional activities or deliverables that were not leveraged.

As anticipated, performance measurement is connected to formal ownership (the unit that pays is entitled to establish the related criteria). Consistently, it must be indicated how a tension emerged when addressing such an aspect of "ownership", with respondents assigning to either Philips Design or Philips Lighting the genesis and control of city.people.light: [6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY) *"I think in those days it was even more clear between the functions, what Design did, what – You know, Marketing did more – was more about the immediate MarCom and Sales in those days and then technology. So, in that sense Design did that kind of strategic marketing role in those days. Ja, what made it – why could not anyone just run it? Well, in a – the first one – the participants were all designers, and then in the 2006 workshop, the participants were not - but it was facilitated in the creative process".* – Laura Taylor]. Such tension included personal dynamics of an historical nature, where the intellectual ownership and the budget ownership might tend to overlap or conflict:

[6.9.2 DESIGN LEADERSHIP / UNIQUENESS / INTERVIEWS (HISTORY) *"…the first city.people.light it has been my invention of -- in an example of what I would define as a multi-purpose strategy… […] As I mentioned, I did not have any key-performance indicator to, let's say, at upfront-- because it was also first of a kind, so it was never done before and therefore I did not know what I could have expected -- when actually we started with this, and we selected the cities, and the mayors, and the architects to be interviewed, I was not yet even sure that they would have been, let's say, engaging -- and that they would have accepted to do this. So, it was really, let's say, like -- like a research project: I had a hypothesis, I had a number of questions that I wanted to do -- to get answered, but I did not know where and where I would arrived after -- after the first effort. And so it was actually a learning by doing, so getting answers on the go and after the first response, positive response, of the mayor and the architect with which we executed the interview".* – Stefano Marzano]. It must be also highlighted, as the last code might suggest, how the 1996–1997 city.people.light was created in a very different economic and organizational framework. This was one where budget management and financial priorities were not a pressure on Philips Design.

Concerning the general Action Research qualities of the approach, and in particular its openness to participation, the city.people.light processes were once again originally designed (1996) to engage in a dialog with thought leaders and decision makers at professional level only: [6.18.2 PARTICIPATION / DESIGN (CONTEXT) - *"[…] Well, it is one of those sort of aged discussions within the interaction design: can you really ask users to be innovative or design the future? I am - I am in the camp that sort of says: you can have a go, but don't take what they say literally, because there people tend - unless their completely bombarded all the time with different inspirations and creative thinking - they just solve their currently problem. I just use the quote, if you ask people what they wanted around, what was the late 1800, they would have said they wanted a faster horse, they would not have asked for a car, cause they would not have been able to imagine it. And this is the same thing, if you involve people into a too abstract intellectual level, and it is not until you have something specific, that they can experience, then you get valuable interactions. That's my perspective".* – Lorna Goulden]. In time, this original construction of references and networking priorities was substantially maintained intact. Although, subject to opening up workshop processes to increasing levels of co-creative contribution (leading to stakeholder sketches) and applicative prototyping requiring technical staff support (from sketches to mock ups). The possible benefits of citizen participation were not discussed in the interviews as a regular practice, with the ancillary exception of Wroclaw ("day after" voting of the best concepts by local population of the site) not even being mentioned in the interviews. In this respect, the conclusion is that city.people.light remains a business-to-business program, exclusively addressing professional stakeholders, excluding citizens and other non-professional audiences.

In terms of output, the interests of product innovation development, long term relationship management for sales and PR profiling through thought leadership were duly represented and articulated, in time, through the various editions of the program. At a more organizational and structured level it was separately identified how the educational dimension and the learning performance could not be measured, even in marketing-driven applications of city.people.light like "Architects of Light" in Poland. In this national program, however, an apparent synthesis between a structural involvement of students as well as professional stakeholders, consolidated the bottom up leadership expressed by this marketing-driven program: [*"… that would be hard to measure, how they acquire the knowledge and on what kind of level, because we did not do any*

education, you know, testing of how much they have learned". – Dorota Slawinska *(on Architects of Light)*]. No KPI was mentioned for Strijp Masterplan by Philips Design for the City of Eindhoven. Concerning the workshop format of the Polish spin off of "Architects of Light", this aimed at replicating the city.people.light approach on the basis of its 2011-2013 European extension. Namely, the *"Create the Livable City"* format, with a number of modifications and adaptations to the CRM priorities in the country but with the same KPI assessment reference, namely NPS: [6.2.4 NPS (CONTEXT) *"We do the NPS, Net Promoter Score questionnaire. And we not only measure the overall NPS, which is mainly the result of an answer: how likely would you recommend Philips to your business partner or colleague? But we also measured the NPS, the Promoter Score and the satisfaction of customer from workshop itself. So, there were two measures basically done after each of the workshop. And the satisfaction of the customer from the event was really huge, it was over 80 percent, from each workshop. […] So, people liked it. The more workshops we made actually, the more presence we got and the more push from the market we created".* – Dorota Slawinska *(on Architects of Light)*]. As part of this spin off the partial involvement with Philips Lighting Poland SA (three professional workshops of the total five across 2012-2011) of the PhD researcher was aimed at ensuring both content (presentation of matrix scenarios) and profiling (thought leadership) adequate perception of single events. On the other hand, country-specific marketing programs like the Polish "Architects of Light", that supplied the Wroclaw workshop case for the 2014 book, inevitably took a higher degree of care for the selection of actual applicative tactics within markets. There, it must be reiterated how, across city.people.light workshops, a strong experiential emphasis complemented narrative enactments aimed at enabling social recognition and mutual validation of each actor. In this respect, all program assets appear to be refocused around strategic commercial priorities. Visual documentation of the final output of each Polish workshop was modeled on *"Create the Livable City"* standards. Hence, providing fully compatible image banks for each event where photographs depict mock up installations embodying design concepts. Such compatibility later led to the inclusion of a selected workshop (Wroclaw) in the 2014 *"Create the Livable City"* book. (Note: Such transition was not discussed at the time of interviewing related experts for this PhD, as the decision to operate this inclusion was made at a later time, in 2014).

6.2.2) "Design" as governing principle of city.people.light

Through the last two decades, a key feature of city.people.light has been the profiling of the research program in the context of "Design Thinking": [6.11.2 DESIGN / DESIGN THINKING / CO-CREATION (CONTEXT) *"…Design thinking, it's a way of thinking, it's a way of thinking about doing creativity. And particularly it's about iterative, it's about collaborative, and it's about being creative, and I think both approaches, both sort of initiatives --"* – Lorna Goulden], as being originated in 1996 from High Design principles and as such being extended by Philips Design in 2006: [6.11.6 HIGH DESIGN / INSIGHT / TECHNOLOGY (HISTORY) *"… in that sense, of course it is Design Thinking. I mean if you define Design Thinking as how Tim Brown does it. I think city.people.light is a fine example – […]…I mean High Design in the way Stefano cultivated it, was really about insight generation, you know, analysing that, doing experience flows and all that stuff and then creating a 360 degrees experience…".* – Rogier van der Heide]. It is impossible to quantify, from a positivist viewpoint, the nature, value and single manifestations of such "ideological" affiliation. However, it clearly emerged, from various quotes and codes, how this explicit choice of pseudo-epistemic nature, made in 1996, has been reiterated through various steps and crucial moments. Constituting, de facto, a

pervasive set of "invisible, unspoken" connecting dots and boundaries in the city.people.light frameworks over the years. Such key framework of High Design was established through city.people.light at the moment of its very conception and remained stable through each subsequent exercise, as a reference for most actors involved at Philips and through Philips, as suppliers [6.1.4 CROSSROADS DESIGN VS. RESEARCH (CONTEXT) *"…a number of programs that actually run at the crossroads of design and research. And they do take into account actually the information out of city.people.light".* – Rogier van der Heide], although the notion of multipurpose strategy was not always reiterated in the ancillary projects. The essence of a multipurpose strategy, as captured in Chapter 4 from a theoretical perspective, is to create a dialog, an exchange and a number of synergies across different departments, stakeholders and interests, by taking just one action. From this viewpoint, the general appraisal of the first 1996 edition was positive: [6.1.18 DESIGN / THOUGHT LEADERSHIP (HISTORY) *"…for Philips Design it was a success. Because, let's take the response of the media, the response of the architects, the response of the -- of the, mayor. And the second the engagement proofs that it was highly appreciated and that Philips Design was definitely recognized as a thought-leader in looking at the cities with different eyes than what was actually done until then by all the companies operating in the lighting industry and light design, design organisation, as actually we were moving from -- from only the out of the boundaries of the traditional product design and we were entering in a new higher level of design activity that was very much intimate with architecture, urban planning and [project?] and an ambient experiential solution".* – Stefano Marzano]. Furthermore, the workshop facilitation process for each event respected the same principles, enabling multiple benefits from insight informal validation to CRM networking, and further, starting from typical lighting design motives like façades or other applications: [6.1.20 CRM / COMMUNITY (HISTORY) *"In terms of turnover from the new – so, what they looked at were two things. They said: Ok, when it comes to, a top of mind for the architects of outdoor lighting who are they thinking of and then specifically for building lighting, or also flood lighting, lighting façades, all the technical stuff, but really that we are thought leader; the events that we organize, the feedback that we got from the events, the recognition of the thought leadership. There was a growing community, really going to Philips events to know what the latest trends, and the whole lecture program, so that is thought leadership recognition, and the media. And on the other hand it's the turnover, that all your new products, and your new program – how the turnover was and the growth in that market… […] Then we had the – the point is that it is not hit and run. If you see – […] The attitude changed. […] To continue the investment in outdoor lighting and to focus fully on city-beautification… […] And the relationship that Philips was recognized of being really a partner in outdoor lighting, specifically. The portfolio also was also seen as a palette for the architects who really do think about light in the city and start to sell – so we really get a higher value and higher margins in our product, and we were asked for projects we were never – […] Business points, ja. […] You should also interview people on the marketing side that were in those days also responsible for the financials, let's say, the sales".* – Jos Stuyfzand]. From lighting design trends, the topical focus shifted therefore to networking and strategic business benefits. Some might not recognize a "design specificity" in the latter quote, since workshop facilitation might not be strictly associated with "Design". However, it must be highlighted and recalled how Philips Design established since the 1960's a solid tradition in multidisciplinary team management, and how the "workshop" format was developed as a necessary enabler of High Design since the early 1990's and through *"Vision of the Future".* Hence, the attribution to Philips Design of this specific competence might appear appropriate in historical terms.

The ambition to envision a different professional future, one where the design of physical objects might be replaced by the design of spatial and social relationships, might be seen as intrinsically structural with the futures research nature of the city.people.light program: [6.1.3 DESIGN / INSIGHTS / THOUGHT LEADERSHIP (HISTORY) *"But maybe that is because I am an industrial designer, so we were looking very much at the market and in general at trends. So, that part was very familiar to me, like looking at, in general, trends in the society – industrial design was very much about focusing on that, and understanding it, and building upon it. But this was really about the city and I think that was - that was new to me. That was the first time that I – ja – got a deeper understanding in the changes in the city, and about how to get a grip on these challenges just by looking into futures and studying that – and get those insights".* – Jasmine van der Pol *(on 1996 and general approach)*]. More statements and quotes might be seen as converging to indicate the existence of this creative tension towards the unknown, translated into the architectural notion of experiences in space. In the context of 1996, however, design articulations from research findings, the "discourse" of standalone "object" design remained central as reference for dialog and related feedback loops with key audiences, even in the farthest fetching horizon on innovation and product design: [6.16.1 WORKSHOP / MULTIDISCIPLINARY / BOOK (HISTORY) *"I had a really clear goal. We had to deliver an exhibition in Paris, in 1999. So, the – which would show to invited customers and stakeholders our vision - to make it tangible. And you know, we could have just picked things out of the city.people.light book and make them, but we wanted to do a much more – to connect with the people in the business and development, and do it all together, and that is why another purpose of the translating steps and the workshops. […] Well, it did not really feel like that, because it was so action oriented, because we had to get to this workshop – to this event".* – Laura Taylor]. "Event design", although ancillary, clearly stood as key to the successful outcome of city.people.light 1996-1997 as a whole.
This priority for "Design" related motives and topics, and the related focus on products and objects of the 1997 Paris event, were reiterated, nearly two decades after, in the more applicative programs through the decades. Far reaching the marketing-driven Polish "Architects of Light" in 2012, where the role of mock up's, just as in the *"Create the Livable City"* European program, was introduced as a central feature in the process.

6.2.3) Open Codes

In the context of the Prefigured Coding process, the following Open Codes were identified, semantically described and sequentially classified by the assignment of a unique number. The resulting number is not an index or representing anything beyond the simple assignment of a position in the general taxonomy of the coding archive. The detailed content of all codes, mostly focusing on the highlight within the text of one single quote, is included in Appendix A, in its complete form from transcript as transitional text from transcript fragments, yet to be optimized as Open Codes (the latter visible in Appendix B, in underlined text). From a pure analytical viewpoint the codes below, in their formulation, should be considered exhaustive for the specific procedural purposes that are assigned to them. Since verbal articulation of each code includes the primary (first word) and ancillary (second and/or third word) of their actual content focus. The table below includes the original Prefigured Codes and their reference grid, as diffusively articulated in the general introduction above. For chapter 6 only, as anticipated, the additional tags related to "History" or "Context" are added (between brackets), to provide additional granularity. Although, it was a precise choice, at methodological level, not to

distinguish further between these two different references therefore keeping this preliminary analysis homogeneous.

Basics

6.1 Key outcome: what city.people.light generated

6.1.1 INSIGHTS / INTERVIEWS (HISTORY)

6.1.2 BRAND THEME / MULTIPURPOSE (HISTORY)

6.1.3 DESIGN / INSIGHTS / THOUGHT LEADERSHIP (HISTORY)

6.1.4 CROSSROADS DESIGN VS. RESEARCH (CONTEXT)

6.1.5 THOUGHT LEADERSHIP / URBAN CHALLENGES (HISTORY)

6.1.6 INSIGHTS / VISUALIZATION / INTERVIEWS (HISTORY)

6.1.7 DESIGNER / VISUALIZATION (CONTEXT)

Functional Knowledge

6.1.8 ROADMAP / INNOVATION LOOP / DESIGNER (CONTEXT)

6.1.9 VISUALIZATION / OWN COPYRIGHT (CONTEXT)

Monitoring Knowledge

6.1.10 INNOVATION / UNIQUENESS (HISTORY)

6.1.11 ARCHITECTS' APPROACH / MULTIPURPOSE (HISTORY)

Reflexive Knowledge

6.1.12 INNOVATION (CONTEXT)

6.1.13 BRAND THEME / NOT LEVERAGED (HISTORY)

6.1.14 NOT LEVERAGED / REFLEXIVE (CONTEXT)

6.1.15 BOOK (HISTORY)

6.1.16 BOOK / DISTRIBUTION (HISTORY)

6.1.17 THOUGHT LEADERSHIP / BRAND THEME (HISTORY)

6.1.18 DESIGN / THOUGHT LEADERSHIP (HISTORY)

6.1.19 THOUGHT LEADERSHIP / LEGACY (CONTEXT)

6.1.20 CRM / COMMUNITY (HISTORY)

6.1.21 COMMUNITIES (HISTORY)

6.2 Key performance indicators:
how the value of city.people.light outcome was measured

6.2.1 BUDGET MANAGEMENT (HISTORY)

6.2.2 ROADMAP / NOT LEVERAGED (HISTORY)

6.2.3 NPS / THOUGHT LEADERSHIP (HISTORY)

6.2.4 NPS (CONTEXT)

6.2.5 EDUCATIONAL / NOT LEVERAGED (CONTEXT)

6.2.6 ARCHITECTS' APPROACH / NOT LEVERAGED (HISTORY)

6.3 Perceived Points of uniqueness of city.people.light

6.3.1 UNIQUENESS / CRM / ROADMAP (CONTEXT)

6.3.2 UNIQUENESS (CONTEXT)

6.3.3 BRAND THEME / ARCHITECTS' APPROACH (HISTORY)

6.3.4 UNIQUENESS / LEADERSHIP (HISTORY)

6.3.5 UNIQUENESS (CONTEXT)

6.4 Educational unique value of city.people.light *(academic, applied)*

6.4.1 DESIGN / EDUCATIONAL (CONTEXT)

6.4.2 BOOK / EDUCATIONAL (HISTORY)

6.4.3 DESIGN / BOOK / EDUCATIONAL (HISTORY)

6.4.4 EDUCATIONAL (CONTEXT)

6.4.5 EDUCATIONAL (CONTEXT)

6.5 Financial Ownership

6.5.1 BUDGET MANAGEMENT (CONTEXT)

6.5.2 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)

6.5.3 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)

6.5.4 BUDGET MANAGEMENT (HISTORY)

6.5.5 BUDGET OWNERSHIP (HISTORY)

6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY)

6.6 Post-event / post-program applications

6.6.1 MARKETING OWNERSHIP / ROADMAP (HISTORY)

6.6.2 NOT LEVERAGED (CONTEXT)

6.6.3 NOT LEVERAGED (CONTEXT)

6.6.4 CHAMPION (HISTORY)

6.6.5 DESIGN / BOOK / ROADMAP (HISTORY)

6.6.6 BOOK (CONTEXT)

6.6.7 BOOK (CONTEXT)

6.6.8 HORIZON 2 (CONTEXT)

6.6.9 NETWORKS / NOT LEVERAGED (CONTEXT)

6.6.10 DESIGN / ARCHITECTS' APPROACH / MARKETING (CONTEXT)

Futures

6.7 Innovation horizons *(Continuous innovation, disruptive innovation)*

6.7.1 HORIZON 2 / FUNCTIONAL / ROADMAP (CONTEXT)

6.7.2 HORIZON 3 / MONITORING / STRATEGY (CONTEXT)

6.7.3 SKETCHES / WILD CARD / HORIZON 3 (HISTORY)

6.7.4 HORIZON 3 / SCENARIOS (HISTORY)

6.7.5 HORIZON 3 / TECHNOLOGY (HISTORY)

6.7.6 DESIGN / TECHNOLOGY / HORIZON 1 (HISTORY)

6.7.7 STRATEGIC MARKETING / DESIGN / HORIZON 2 / 3 (HISTORY)

6.8 Structures *(Workshops, Matrix)*

6.8.1 MATRIX (HISTORY)

6.8.2 STRUCTURE (HISTORY)

6.8.3 MARKETING / TECHNOLOGY / ROADMAP (HISTORY)

6.8.4 MATRIX / DESIGN (HISTORY)

6.8.5 MATRIX / BOOK / DESIGN (HISTORY)

6.8.6 MATRIX (HISTORY)

6.8.7 MATRIX / VISUALIZATION / WORKSHOP (HISTORY)

6.9 Forecasting Rationale *(Falsifiable Forecasting, Genius Forecasting)*

6.9.1 DESIGN LEADERSHIP / MATRIX / STRUCTURE (CONTEXT)

6.9.2 DESIGN LEADERSHIP / UNIQUENESS / INTERVIEWS (HISTORY)

6.9.3 SPIN OFF'S (HISTORY)

6.9.4 DESIGN / STRUCTURE (CONTEXT)

6.10 Forecasting Techniques *(Generating, Integrating)*

6.10.1 BOOK / NORMATIVE (HISTORY)

6.11 Technology *(High Tech, High Design)*

6.11.1 TECHNOLOGY (CONTEXT)

6.11.2 DESIGN / DESIGN THINKING / CO-CREATION (CONTEXT)

6.11.3 TECHNOLOGY (CONTEXT)

6.11.4 TECHNOLOGY / HORIZON 3 (HISTORY)

6.11.5 INSIGHTS / TECHNOLOGY / DESIGN (HISTORY)

6.11.6 HIGH DESIGN / INSIGHT / TECHNOLOGY (HISTORY)

6.11.7 DESIGN / TRAINED JUDGEMENT / GENIUS FORECASTING (HISTORY)

6.11.8 DESIGN PROCESS / THOUGHT LEADERSHIP / MATRIX (HISTORY)

Product

6.12 Book *(Editorial Design, Distribution)*

6.12.1 BOOK (HISTORY)

6.12.2 BOOK / DISTRIBUTION (HISTORY)

6.12.3 SKETCHES / CONCEPT / NOT LEVERAGED (CONTEXT)

6.12.4 BOOK / SKETCHES (CONTEXT)

6.13 Storylines *(Narrative Practices, Para-scientific Structures)*

6.13.1 MATRIX / SCENARIO (HISTORY)

6.13.2 BRAND THEME / STORYTELLING (HISTORY)

6.13.3 MARKETING / COMMUNICATION / MULTIPURPOSE (HISTORY)

6.13.4 DESIGN / THOUGHT LEADERSHIP / BRAND THEME (HISTORY)

6.13.5 ROADMAP / THOUGHT LEADERSHIP / STORYTELLING (HISTORY)

6.14 Concepts (Physical objects, social spaces)

6.14.1 DESIGN / MOCK UP / NOT LEVERAGED (HISTORY)

6.14.2 SKETCHES / MOCK UP / PROCESS / DESIGN (CONTEXT)

6.14.3 DESIGN PROCESS / DESIGN THINKING (HISTORY)

6.15 Symbols (Creative Leadership, Commercial Focus)

6.15.1 HIGH DESIGN / CREATIVE LEADERSHIP (HISTORY)

6.15.2 BOOK / WORKSHOP / DESIGN (CONTEXT)

Process

6.16 Relationship Management *(Community versus CRM)*

6.16.1 WORKSHOP / MULTIDISCIPLINARY / BOOK (HISTORY)

6.16.2 CRM / TRUST (CONTEXT)

6.16.3 COMMUNITY / MULTIDISCIPLINARY (CONTEXT)

6.16.4 CRM / SALES / DESIGN (CONTEXT)

6.16.5 COMMUNITY / SOCIAL MEDIA (CONTEXT)

6.17 Openness *(Co-creation, Contribution - for professional stakeholders)*

6.17.1 DESIGNER / INTERVIEW / INSIGHTS / CO-CREATION (INSIGHTS)

6.17.2 WORKSHOP / CONTRIBUTION / CONCEPT (HISTORY)

6.17.3 SKETCHES / CO-CREATION / DESIGNER (CONTEXT)

6.17.4 INNOVATION LOOP / MULTIDISCIPLINARY / CONTRIBUTION (CONTEXT)

6.18 Participation *(Participatory, Normative – for non-professional stakeholders)*

6.18.1 PARTICIPATION / WORKSHOPS / DESIGNER (CONTEXT)

6.18.2 PARTICIPATION / DESIGN (CONTEXT)

6.18.3 PARTICIPATION (CONTEXT)

6.19 Networks *(programmer, switcher)*

6.19.1 SWITCHER (CONTEXT)

6.19.2 PARTICIPATION / SWITCHER (CONTEXT)

6.19.3 INNOVATION LOOP / DESIGNER (CONTEXT)

6.19.4 BARTER (CONTEXT)

6.19.5 BARTER / DESIGN (HISTORICAL)

6.19.6 COMMUNITIES / SWITCHER (CONTEXT)

6.19.7 SWITCHING (CONTEXT)

6.19.8 DESIGN / SWITCHER / TRUST (HISTORY)

6.19.9 SWITCHER / NOT LEVERAGED (CONTEXT)

6.19.10 MARKETING / SWITCHER (CONTEXT)

6.3) GENERATIVE SUBCATEGORIES AND PROPOSITIONS

As introduced and as methodologically clarified in the general introduction to the entire empirical section the Generative Categories were identified by clustering the Open Codes in sequential order, as based on semantic affinity related to the first word identifying each code. Generative Subcategories were extracted by clustering the key Open Codes highlights, e.g. lines and words underlined, to then be analyzed, synthetized and semantically transferred into a concise statement capturing their essence (Generative Propositions). Additionally, Generative Propositions were also rated in order to provide an orientation about their intrinsic and functional quality. The PhD researcher adopted an index from 1 (lowest score) to 5 (highest score) and performed three waves of rating of each Generative Proposition statement, based on the following interpretative framework:

Index value 1 = statement is weak
Index value 2 = statement is representative of the Generative Subcategory

Index value 3 = statement is representative and editorially compact
Index value 4 = statement is representative, compact, relevant to the key axial category
Index value 5 = statement is strong for Axial Coding purposes.

Index values express only a generic statement of appraisal and will have no direct impact on the Axial Coding procedure, in order to maintain the research findings as much as possible representative of all the opinions recorded in the original transcripts. Once again, Generative Subcategories are more "steps" than full blown "transitional objects", as Open Codes and especially Generative Propositions might be described. Differently than all constructs so far presented, Generative Propositions are self-sufficient, as each of them contains all of the amount of text required to identify it and describe its meaning. Whereas codes are semiotic triggers, "standing for" larger quantities of text and deeper layers of interpretation, Generative Propositions "are" exactly what they "represent", in total synthesis.

Generative Subcategory 6.1:

6.1 Generative Proposition (5):

Design takes the lead in creating insights by processing expert interviews and then presenting such insights visually, in order to challenge the current status quo of High Tech.

6.1.1 INSIGHTS / INTERVIEWS (HISTORY)
6.1.6 INSIGHTS / VISUALIZATION / INTERVIEWS (HISTORY)
6.11.5 INSIGHTS / TECHNOLOGY / DESIGN (HISTORY)

Generative Subcategory 6.2:

6.2 Generative Proposition (4):

A storytelling *brand theme* is created as a multipurpose approach to target architects. In order to generate both innovation assets and PR visibility. This leads to the definition of a distinctive, however managerially underleveraged, specific "Architects' Approach".

6.1.2 BRAND THEME / MULTIPURPOSE (HISTORY)
6.1.13 BRAND THEME / NOT LEVERAGED (HISTORY)
6.3.3 BRAND THEME / ARCHITECTS' APPROACH (HISTORY)
6.13.2 BRAND THEME / STORYTELLING (HISTORY)

Generative Subcategory 6.3:

6.3 Generative Proposition (5):

Design creates a thought leadership foresight framework to successfully study, anticipate and leverage a deep understanding of urban change. Involving both senior and younger architects within major architectural firms, in order to envision innovation solutions that will happen over time. Student involvement is not part of the approach.

6.1.3 DESIGN / INSIGHTS / THOUGHT LEADERSHIP (HISTORY)
6.1.18 DESIGN / THOUGHT LEADERSHIP (HISTORY)

6.4.1 DESIGN / EDUCATIONAL (CONTEXT)
6.4.3 DESIGN / BOOK / EDUCATIONAL (HISTORY)
6.6.5 DESIGN / BOOK / ROADMAP (HISTORY)
6.6.10 DESIGN / ARCHITECTS' APPROACH / MARKETING (CONTEXT)
6.7.6 DESIGN / TECHNOLOGY / HORIZON 1 (HISTORY)
6.9.4 DESIGN / STRUCTURE (CONTEXT)
6.11.2 DESIGN / DESIGN THINKING / CO-CREATION (CONTEXT)
6.11.7 DESIGN / TRAINED JUDGEMENT / GENIUS FORECASTING (HISTORY)
6.13.4 DESIGN / THOUGHT LEADERSHIP / BRAND THEME (HISTORY)
6.14.1 DESIGN / MOCK UP / NOT LEVERAGED (HISTORY)
6.19.8 DESIGN / SWITCHER / TRUST (HISTORY)

Generative Subcategory 6.4:

6.4 Generative Proposition (5):

Design generates a program with hybrid elements from R&D (research) and strategic marketing, progressively opening it up in its second edition to external stakeholders.

6.1.4 CROSSROADS DESIGN VS. RESEARCH (CONTEXT)
6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY)

Generative Subcategory 6.5:

6.5 Generative Proposition (3):

Authentic thought leadership is generated for the benefit of the business unit through a self-generated program, beyond what can be purchased as outsourced service.

6.1.5 THOUGHT LEADERSHIP / URBAN CHALLENGES (HISTORY)
6.1.17 THOUGHT LEADERSHIP / BRAND THEME (HISTORY)
6.1.19 THOUGHT LEADERSHIP / LEGACY (CONTEXT)

Generative Subcategory 6.6:

6.6 Generative Proposition (5):

Design enables an experience of "virtual co-creation" by means of a process that connects insights generated beforehand from expert interviews, to inspiring multimedia visualizations.

6.1.7 DESIGNER / VISUALIZATION (CONTEXT)
6.17.1 DESIGNER / INTERVIEW / INSIGHTS CO-CREATION (HISTORY)

Generative Subcategory 6.7:

6.7 Generative Proposition (3):

Product roadmaps are generated by means of innovation process loops; where storytelling is key to improve the brand perception with stakeholders.

6.1.8 ROADMAP / INNOVATION LOOP / DESIGNER (CONTEXT) (Functional)
6.2.2 ROADMAP / NOT LEVERAGED (HISTORY)
6.13.5 ROADMAP / THOUGHT LEADERSHIP / STORYTELLING (HISTORY)

Generative Subcategory 6.8:

6.8 Generative Proposition (3):

Visual content as generated and published within the program is copyright-free for re-use within spin off projects.

6.1.9 VISUALIZATION / OWN COPYRIGHT (CONTEXT) (Functional)

Generative Subcategory 6.9:

6.9 Generative Proposition (2):

The program identifies new emerging needs, enabling a legacy in product leadership. It is a natural condition of innovation to work in the fuzzy front.

6.1.10 INNOVATION / UNIQUENESS (HISTORY) (Monitoring)
6.1.12 INNOVATION (CONTEXT) (Reflexive)

Generative Subcategory 6.10:

6.10 Generative Proposition (3):

The program enables connecting to key urban design stakeholders generating PR, innovation and knowledge sharing benefits, establishing an “Architects’ Approach” *brand theme*. Suboptimal conversion into concrete impact is due to company conditions.

6.1.11 ARCHITECTS’ APPROACH / MULTIPURPOSE (HISTORY) (Monitoring)
6.2.6 ARCHITECTS’ APPROACH / NOT LEVERAGED (HISTORY)

Generative Subcategory 6.11:

6.11 Generative Proposition (4):

The book captures all relevant knowledge generated by the program at visionary and theoretical levels. Enabling its sharing with wider audiences (e.g. students), taking a central role as a communication tool and as reference for marketing in terms of dissemination and valorization, in spite of its limited distribution.

6.1.15 BOOK (HISTORY)
6.1.16 BOOK / DISTRIBUTION (HISTORY)
6.4.2 BOOK / EDUCATIONAL (HISTORY)
6.6.6 BOOK (CONTEXT)
6.6.7 BOOK (CONTEXT)
6.10.1 BOOK / NORMATIVE (HISTORY)
6.12.1 BOOK (HISTORY)
6.12.2 BOOK / DISTRIBUTION (HISTORY)

6.12.4 BOOK / SKETCHES (CONTEXT)
6.15.2 BOOK / WORKSHOP / DESIGN (CONTEXT)

Generative Subcategory 6.12:

6.12 Generative Proposition (4):

By means of thought leadership, media recognition and continuity, the program builds a communal relationship of trust with stakeholders. Within the program, sales teams act as support only, without directly pursuing sales.

6.1.20 CRM / COMMUNITY (HISTORY)
6.16.2 CRM / TRUST (CONTEXT)
6.16.4 CRM / SALES / DESIGN (CONTEXT)

Generative Subcategory 6.13:

6.13 Generative Proposition (3):

The program is a multidisciplinary platform where existing communities of practice and professional networks of urbanists, landscape designers, scientists, psychologists and more can connect. The platform in itself is no community.

6.1.21 COMMUNITIES (HISTORY)
6.16.3 COMMUNITY / MULTIDISCIPLINARY (CONTEXT)
6.16.5 COMMUNITY / SOCIAL MEDIA (CONTEXT)
6.19.6 COMMUNITIES / SWITCHER (CONTEXT)

Generative Subcategory 6.14:

6.14 Generative Proposition (5):

Budget ownership is with Philips Lighting (the corporate business unit), while ownership is also being claimed as an own investment by Philips Design (the service unit). The program has unconventional budget management requirements and practices. Also, the program has unclear and non-continuous budget allocation.

6.2.1 BUDGET MANAGEMENT (HISTORY)
6.5.1 BUDGET MANAGEMENT (CONTEXT)
6.5.2 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)
6.5.3 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)
6.5.4 BUDGET MANAGEMENT (HISTORY)
6.5.5 BUDGET OWNERSHIP (HISTORY)

Generative Subcategory 6.15:

6.15 Generative Proposition (1):

Net Promoter Score is the reference performance measurement within ancillary contextual projects based on city.people.light principles. Thought leadership over a certain period is one of the program objectives.

6.2.3 NPS / THOUGHT LEADERSHIP (HISTORY)
6.2.4 NPS (CONTEXT)

Generative Subcategory 6.16:

6.16 Generative Proposition (3):

The program has an apparent educational role in teaching stakeholders how to perform lighting design, however this constituency is not measured in terms of performance assessment.

6.2.5 EDUCATIONAL / NOT LEVERAGED (CONTEXT)
6.4.4 EDUCATIONAL (CONTEXT)
6.4.5 EDUCATIONAL (CONTEXT)

Generative Subcategory 6.17:

6.17 Generative Proposition (3):

The program is unique in addressing professional stakeholders and it enables improvements in the portfolio and then in the relationships, resulting in perceived leadership for the corporate business unit.

6.3.1 UNIQUENESS / CRM / ROADMAP (CONTEXT)
6.3.2 UNIQUENESS (CONTEXT)
6.3.4 UNIQUENESS / LEADERSHIP (HISTORY)
6.3.5 UNIQUENESS (CONTEXT)

Generative Subcategory 6.18:

6.18 Generative Proposition (4):

Strategic Marketing owns and/or leverages the program, integrating benefits from viewpoint of long-term innovation (Horizon 2 and 3), media exposure and CRM.

6.6.1 MARKETING OWNERSHIP / ROADMAP (HISTORY)
6.7.7 STRATEGIC MARKETING / DESIGN / HORIZON 2 / 3 (HISTORY)
6.19.10 MARKETING / SWITCHER (CONTEXT)
6.13.3 MARKETING / COMMUNICATION / MULTIPURPOSE (HISTORY)

Generative Subcategory 6.19:

6.19 Generative Proposition (3):

The program output is abstract, therefore non-actionable, challenging and difficult to implement and leverage both in follow up applicative projects and in a corporate strategy context.

6.6.2 NOT LEVERAGED (CONTEXT)
6.6.3 NOT LEVERAGED (CONTEXT)

6.6.9 NOT LEVERAGED / NETWORKS (CONTEXT)
6.1.14 NOT LEVERAGED / REFLEXIVE (CONTEXT) (Reflexive)

Generative Subcategory 6.20:

6.20 Generative Proposition (3):

In order to guarantee its continuity over time the program needs an individual "champion" to lobby within the corporate business unit.

6.6.4 CHAMPION (HISTORY)

Generative Subcategory 6.21:

6.21 Generative Proposition (5):

The program addresses urban futures beyond lighting design. Its findings could be both generated or be integrated within internal visual trend analysis reporting (2-3 years aesthetic forecast), managed by design teams within the service unit organization.

6.6.8 HORIZON 2 (CONTEXT)
6.7.1 HORIZON 2 / FUNCTIONAL / ROADMAP (CONTEXT)

Generative Subcategory 6.22:

6.22 Generative Proposition (4):

The program addresses strategic future challenges in the longer term, beyond current production paradigms, (reflexively) challenging the corporate organization.

6.7.2 HORIZON 3 / MONITORING / STRATEGY (CONTEXT)
6.7.4 HORIZON 3 / SCENARIOS (HISTORY)
6.7.5 HORIZON 3 / TECHNOLOGY (HISTORY)

Generative Subcategory 6.23:

6.23 Generative Proposition (4):

The program delivers sketches to visualize participants' ideas, sometimes beyond current feasibility ("what if" wild cards). Sketches are the result of co-creative processes where enabling conditions are provided. Sketches might prove ineffective when translated into temporary mock-ups or when presented to management audiences.

6.7.3 SKETCHES / WILD CARD / HORIZON 3 (HISTORY)
6.12.3 SKETCHES / CONCEPT / NOT LEVERAGED (CONTEXT)
6.14.2 SKETCHES / MOCK UP / PROCESS / DESIGN (CONTEXT)
6.17.3 SKETCHES / CO-CREATION / DESIGNER (CONTEXT)

Generative Subcategory 6.24:

6.24 Generative Proposition (4):

The matrix is a multilayered, integrative, scenario tool, based on socio-cultural focus and multidisciplinary complexity (marketing, technology, architectural design). It requires an interpretative effort and it offers a reference to classify sketches. It has long-term validity.

6.8.1 MATRIX (HISTORY)
6.8.4 MATRIX / DESIGN (HISTORY)
6.8.5 MATRIX / BOOK / DESIGN (HISTORY)
6.8.6 MATRIX (HISTORY)
6.8.7 MATRIX / VISUALIZATION / WORKSHOP (HISTORY)
6.13.1 MATRIX / SCENARIO (HISTORY)

Generative Subcategory 6.25:

6.25 Generative Proposition (2):

The program is based on personal (informal) motivations to contribute by participants more than on a (formal) structure in knowledge management terms.

6.8.2 STRUCTURE (HISTORY)

Generative Subcategory 6.26:

6.26 Generative Proposition (4):

Workshops are designed and executed in order to integrate trend knowledge (marketing, design, socio-cultural) while connecting stakeholders, resulting in the delivery of concepts. Young talent is involved.

6.8.3 WORKSHOP / TECHNOLOGY / ROADMAP (HISTORY)
6.16.1 WORKSHOP / MULTIDISCIPLINARY / BOOK (HISTORY)
6.17.2 WORKSHOP / CONTRIBUTION / CONCEPT (HISTORY)

Generative Subcategory 6.27:

6.27 Generative Proposition (5):

Socio-cultural information and people focus are required in the program. Keeping the dialog with experts is central. A visionary designer and a sociologist might suffice to structure the information, replacing workshops with individual “trial and error”.

6.9.1 DESIGN LEADERSHIP / MATRIX / STRUCTURE (CONTEXT)
6.9.2 DESIGN LEADERSHIP / UNIQUENESS / INTERVIEWS (HISTORY)

Generative Subcategory 6.28:

6.28 Generative Proposition (2):

Spin offs, based on the methodology, are designed and executed according to diverse interpretations of the program blueprint.

6.9.3 SPIN OFF'S (HISTORY)

Generative Subcategory 6.29:

6.29 Generative Proposition (3):

Technology, as an enabler and a source of inspiration, is an important constituency of the program. Currently existing technology is however not a limiting factor in terms of program feasibility or idea selection.

6.11.1 TECHNOLOGY (CONTEXT)
6.11.3 TECHNOLOGY (CONTEXT)
6.11.4 TECHNOLOGY / HORIZON 3 (HISTORY)

Generative Subcategory 6.30:

6.30 Generative Proposition (5):

The program is based on High Design principles. High Design elevates "design" to a higher master planning role than product design. Integrating technology, sociology and other knowledge in order to generate insights and experience flows

6.11.6 HIGH DESIGN / INSIGHT / TECHNOLOGY (HISTORY)
6.15.1 HIGH DESIGN / CREATIVE LEADERSHIP (HISTORY)

Generative Subcategory 6.31:

6.31 Generative Proposition (5):

The value of "design" within the program lies in its intellectual capital (e.g., relating to thought leading interviewees, steering the process beyond immediate applications, consistently integrating workflows within existing tools to achieve continuity with the past).

6.11.8 DESIGN PROCESS / THOUGHT LEADERSHIP / MATRIX (HISTORY)
6.14.3 DESIGN PROCESS / DESIGN THINKING (HISTORY)

Generative Subcategory 6.32:

6.32 Generative Proposition (2):

Innovation loops based on multidisciplinary interaction with stakeholders are key. The program has an important role within the management of these loops.

6.17.4 INNOVATION LOOP / MULTIDISCIPLINARY / CONTRIBUTION (CONTEXT)
6.19.3 INNOVATION LOOP / DESIGNER (CONTEXT)

Generative Subcategory 6.33:

6.33 Generative Proposition (3):

The program is designed for business-to-business purposes, therefore it does not include any citizen, student or open participation. Although such participation might be desirable, interactions with business stakeholders represent the core value of the program.

6.18.1 PARTICIPATION / WORKSHOPS / DESIGNER (CONTEXT)
6.18.2 PARTICIPATION / DESIGN (CONTEXT)
6.18.3 PARTICIPATION (CONTEXT)
6.19.2 PARTICIPATION / SWITCHER (CONTEXT)

Generative Subcategory 6.34:

6.34 Generative Proposition (3):

The program is based on careful selection of participating stakeholders within communities of practice and professional circles. Such contacts are not consolidated into own networks by any program methodology.

6.19.1 SWITCHER (CONTEXT)
6.19.7 SWITCHING (CONTEXT)
6.19.9 SWITCHER / NOT LEVERAGED (CONTEXT)

Generative Subcategory 6.35:

6.35 Generative Proposition (4):

The program rewards its participating stakeholders on the basis of barter in terms of knowledge ("new thinking") and of professional recognition (affiliation to a perceived think tank).

6.19.4 BARTER (CONTEXT)
6.19.5 BARTER / DESIGN (HISTORY)

6.4) AXIAL CODING

By means of the progressive procedural steps above, it was possible to reduce the high quantity of textual records in the transcripts to a very limited list of simplified and actionable "transitional objects", namely the Generative Propositions. It is possible to track the origin of every single proposition, almost word by word, by going back to the Appendix A, B and C of this PhD study, leveraging the sequential numbering of each item. Having obtained the 35 propositions above the next step is to identify how they relate to each other and more significantly how their further simplification in terms of interdependent relationships will contribute to provide actionable building blocks for grounded theory development, when exposed to the three Sensitizing Concepts in Chapter 9. In a second wave of (axial) coding, just as for Chapter 7 and 8 at a later stage, the identified Generative Propositions will be inter-connected (Creswell, 2013, p.195), leading to the consolidation and further description of the Central Phenomenon on the basis of the priorities and urgencies as formulated as below (as adapted from: Creswell, 2013, p.274) in the form of four questions:

- causal conditions: what influenced this phenomenon to occur?
- strategies: what strategies were observed during the process?
- context: what influenced such strategies?
- consequences: what effect occurred?

Addressing these four questions by clustering traceable propositions will enable the creation of a structure of relationships with deep roots in the data and the earlier layers of stratified codes, once again on the basis of semantic symmetry and conceptual pertinence. As duly articulated in the introduction to this empirical section, Axial Coding will actually process Generative Propositions, in order to generate Themes. Each of the four questions above will therefore generate a corresponding *"Theme".* Contributing to the understanding of the history and context of the Central Phenomenon. As anticipated in the above introduction to the empirical section it should be recalled how "codes" (as emerged from Open Coding) do differ from "Themes" (as emerged from Axial Coding, to be then organized in Selective Coding Storylines through Selective Coding), reiterating part of the provided methodological reference: *"…Ultimately, themes should be able to be linked to data points; that is, one should be able to provide evidence of a given theme within the text being analyzed... Codes are applied to the data (often electronically), whereas themes emerge from the data".* (Guest, Bunce, Johnson, 2006, p.77). In terms of next procedural step, "Themes" will act as "title headlines" of the Selective Coding textual materials.

6.4.1) Key Generative Category: "Design"

"Design" will remain the "Key Generative Category" to be used as reference in order to identify the key axis of the deeper layer of coding, designed to move from Open Codes to Themes. This because "Design" as keyword is functional to addressing the Key Research Question. In order to leverage "Design" as a key generative category, Generative Propositions will be semantically selected and clustered according to their sequential identifier, also to keep the process objective. The main discriminator in selecting a proposition, as related to the Axial Code, will be the presence within its textual body of wording related to "Design "and a related conceptual elaboration.

Axial Coding: Causal Conditions

Theme:
Design Leadership, Marketing Focus

Axial Code: "Design"

6.1 Generative Proposition (5):

Design takes the lead in creating insights by processing expert interviews, and then presenting such insights visually, in order to challenge the current status quo of High Tech.

Related Categories:

6.18 Generative Proposition (4):

Strategic Marketing owns and/or leverages the program, integrating benefits from the

viewpoint of long-term innovation (Horizon 2 and 3), media exposure and CRM.

6.20 Generative Proposition (3):

In order to guarantee its continuity over time, the program needs an individual "champion" to lobby within the corporate business unit.

Axial Coding: Strategies

Theme:
Design as B-to-B knowledge manager and network switcher

Axial Code: "Design"

6.3 Generative Proposition (5):

Design creates a thought leadership foresight framework to successfully study, anticipate and leverage a deep understanding of urban change. Involving both senior and younger architects within major architectural firms, in order to envision innovation solutions that will happen over time. Student involvement is not part of the approach.

6.4 Generative Proposition (5):

Design generates a program with hybrid elements from R&D (research) and strategic marketing, progressively opening it up in its second edition to external stakeholders.

6.33 Generative Proposition (3):

The program is designed for business-to-business purposes, therefore it does not include any citizen, student or open participation. Although such participation might be desirable interactions with business stakeholders represent the core value of the program.

Related Categories:

6.7 Generative Proposition (3):

Product roadmaps are generated by means of innovation process loops, where storytelling is key to improve the brand perception with stakeholders.

6.11 Generative Proposition (4):

The book captures all relevant knowledge generated by the program at visionary and theoretical levels. Enabling its sharing with wider audiences (e.g. students), taking a central role as communication tool and as reference for marketing in terms of dissemination and valorization, in spite of its limited distribution.

6.22 Generative Proposition (4):

The program addresses strategic future challenges in the longer term, beyond current production paradigms, (reflexively) challenging the corporate organization.

6.23 Generative Proposition (4):

The program delivers sketches to visualize participants' ideas, sometimes beyond current feasibility ("what if" wild cards). Sketches are the result of co-creative processes where enabling conditions are provided. Sketches might prove ineffective when translated into temporary mock-ups or when presented to management audiences.

6.34 Generative Proposition (3):

The program is based on careful selection of participating stakeholders within communities of practice and professional circles. Such contacts are not consolidated into own networks by any program methodology.

6.35 Generative Proposition (4):

The program rewards its participating stakeholders on the basis of barter in terms of knowledge ("new thinking") and of professional recognition (affiliation to a perceived think tank).

Axial Coding: Context

Theme:
Design as intellectual partner in a multidisciplinary platform

Axial Code: "Design"

6.28 Generative Proposition (2):

Spin offs based on the methodology are designed and executed, according to diverse interpretations of the program blueprint.

6.30 Generative Proposition (5):

The program is based on High Design principles. High Design elevates "design" to a higher, master planning, role than product design. Integrating technology, sociology and other knowledge, in order to generate insights and experience flows.

6.31 Generative Proposition (5):

The value of "design" within the program lies in its intellectual capital (e.g., relating to thought leading interviewees, steering the process beyond immediate applications, consistently integrating workflows within existing tools to achieve continuity with the past).

Related Categories:

6.9 Generative Proposition (2):

The program identifies new emerging needs, enabling a legacy in product leadership. It is a natural condition of innovation to work in the fuzzy front.

6.12 Generative Proposition (4):

By means of thought leadership, media recognition and continuity, the program builds a communal relationship of trust with stakeholders. Within the program sales teams act as support only without directly pursuing sales.

6.13 Generative Proposition (3):

The program is a multidisciplinary platform where existing communities of practice and professional networks of urbanists, landscape designers, scientists, psychologists and more can connect. The platform in itself is no community.

6.14 Generative Proposition (5):

Budget ownership is with Philips Lighting (the corporate business unit), while ownership is also being claimed as an own investment by Philips Design (the service unit). The program has unconventional budget management requirements and practices. Also, the program has unclear and non-continuous budget allocation.

6.15 Generative Proposition (1):

Net Promoter Score is the reference performance measurement within ancillary contextual projects based on city.people.light principles. Thought leadership over a certain period is one of the program objectives.

6.19 Generative Proposition (3):

The program output is abstract, therefore non-actionable, challenging and difficult to implement and leverage both in follow up applicative projects and in corporate strategy context.

6.25 Generative Proposition (2):

The program is based on personal (informal) motivations to contribute by participants, more than on a (formal) structure in knowledge management terms.

6.26 Generative Proposition (4):

Workshops are designed and executed in order to integrate trend knowledge (marketing, design, socio-cultural) while connecting stakeholders, resulting in the delivery of concepts. Young talent is involved.

6.27 Generative Proposition (5):

Socio-cultural information and people focus are required in the program. Keeping the dialog with experts is central. A visionary designer and a sociologist might suffice to structure the information, replacing workshops with individual “trial and error”.

Axial Coding: Consequences

Theme:
Design as visual connector, creating an architect-focused *brand theme*

Axial Code: "Design"

6.6 Generative Proposition (5):

Design enables an experience of "virtual co-creation" by means of a process that connects insights generated beforehand from expert interviews to generate inspiring multimedia visualizations.

Related Categories:

6.2 Generative Proposition (4):

A storytelling *brand theme* is created, as a multipurpose approach to target architects, in order to generate both innovation assets and PR visibility. This leads to the definition of a distinctive, however managerially underleveraged, specific "Architects' Approach".

6.5 Generative Proposition (3):

Authentic thought leadership is generated for the benefit of the business unit through a self-generated program, beyond what can be purchased as outsourced service.

6.8 Generative Proposition (3):

Visual content, as generated and published within the program, is copyright-free for re-use within spin off projects.

6.10 Generative Proposition (3):

The program enables connecting to key urban design stakeholders generating PR, innovation and knowledge sharing benefits. Establishing an "Architects' Approach" *brand theme*. Suboptimal conversion into concrete impact is due to company conditions.

6.16 Generative Proposition (3):

The program has an apparent educational role in teaching stakeholders how to perform lighting design, however this constituency is not measured in terms of performance assessment.

6.17 Generative Proposition (3):

The program is unique in addressing professional stakeholders and it enables improvements in the portfolio and then in the relationships, resulting in perceived leadership for the corporate business unit.

6.32 Generative Proposition (2):

Innovation loops based on multidisciplinary interaction with stakeholders are key. The program has an important role within the management of these loops.

6.4.2) Axial Coding Final Deliverables: Themes

The Axial Coding for Chapter 6 ("History and Context") delivered the following Themes:

Causal Conditions Theme:
Design Leadership, Marketing Focus

Strategies Theme:
Design as B-to-B knowledge manager and network switcher

Context Theme:
Design as intellectual partner in a multidisciplinary platform

Consequences Theme:
Design as visual connector, creating an architect-focused *brand theme*

Axial Themes will remain as a reference in the Selective Coding process, namely as an editorial title to each Selective Code, as the latter will be substantiated by a longer textual elaboration, including all Generative Propositions, in a new order of priority and with specific semantic focus depending on their position in the text in order to achieve final synthesis.

6.5) SELECTIVE CODING: STORYLINES

The priority lies with the Key Axial Category as rendered by the corresponding text that primarily connects to the axial Theme as a further articulation thereof. The remaining text has value of expansion and clarification. Based on these operational principles, this is the result of Selective Coding for Chapter 6, where all textual content is empirically based, coding generated material, therefore not to be edited or modified to preserve the coherence and integrity of research input to Grounded Theory development:

6.5.1) Causal Conditions Theme:
Design Leadership, Marketing Focus

Design takes the lead in creating insights by processing expert interviews, and then presenting such insights visually, in order to challenge the current status quo of High Tech.

Strategic Marketing owns and/or leverages the program, integrating benefits from the viewpoint of long-term innovation (Horizon 2 and 3), media exposure and CRM. In order to guarantee its continuity over time the program needs an individual "champion" to lobby within the corporate business unit.

6.5.2) Strategies Theme:
Design as B-to-B knowledge manager and network switcher

Design generates a program with hybrid elements from R&D (research) and

strategic marketing, progressively opening it up in its second edition to external stakeholders. Design creates a thought leadership foresight framework to successfully study, anticipate and leverage a deep understanding of urban change. Involving both senior and younger architects within major architectural firms, in order to envision innovation solutions that will happen over time. Student involvement is not part of the approach. The program is designed for business-to-business purposes, therefore it does not include any citizen, student or open participation. Although such participation might be desirable, interactions with business stakeholders represent the core value of the program.

The program addresses strategic future challenges in the longer term, beyond current production paradigms, (reflexively) challenging the corporate organization. The program delivers sketches to visualize participants' ideas, sometimes beyond current feasibility ("what if" wild cards). Sketches are the result of co-creative processes where enabling conditions are provided. Sketches might prove ineffective when translated into temporary mock-ups or when presented to management audiences. The book captures all relevant knowledge generated by the program at visionary and theoretical levels, enabling its sharing with wider audiences (e.g. students), taking a central role as a communication tool and as a reference for marketing in terms of dissemination and valorization, in spite of its limited distribution. Product roadmaps are generated by means of innovation process loops, where storytelling is key to improve the brand perception with stakeholders. The program is based on careful selection of participating stakeholders within communities of practice and professional circles. Such contacts are not consolidated into own networks by any program methodology. The program rewards its participating stakeholders on the basis of barter in terms of knowledge ("new thinking") and of professional recognition (affiliation to a perceived think tank).

6.5.3) Context Theme:
Design as intellectual partner in a multidisciplinary platform

The program is based on High Design principles. High Design elevates "design" to a higher master planning role than product design. Integrating technology, sociology and other knowledge, in order to generate insights and experience flows. Spin offs based on the methodology are designed and executed, according to diverse interpretations of the program blueprint. The value of "design" within the program lies in its intellectual capital (e.g., relating to thought leading interviewees, steering the process beyond immediate applications, consistently integrating workflows within existing tools to achieve continuity with the past).

The program identifies new emerging needs, enabling a legacy in product leadership. It is a natural condition of innovation to work in the fuzzy front. Socio-cultural information and people focus are required in the program. Keeping the dialog with experts is central. A visionary designer and a sociologist might suffice to structure the information, replacing workshops with individual "trial and error". Workshops are designed and executed in order to integrate trend knowledge (marketing, design, socio-cultural) while connecting stakeholders, resulting in the delivery of concepts. Young talent is involved. The program is based on personal (informal) motivations to contribute by participants, more than on a (formal) structure in knowledge management terms.

The program is a multidisciplinary platform where existing communities of practice and professional networks of urbanists, landscape designers, scientists, psychologists and

more can connect. The platform, in itself, is no community. By means of thought leadership, media recognition and continuity, the program builds a communal relationship of trust with stakeholders. Within the program, sales teams act as support only, without directly pursuing sales.

The program output is abstract, therefore non-actionable, challenging and difficult to implement and leverage both in follow up applicative projects as in corporate strategy context. Budget ownership is with Philips Lighting (the corporate business unit), while ownership is also being claimed, as own investment, by Philips Design (the service unit). The program has unconventional budget management requirements and practices. Also, the program has unclear and non-continuous budget allocation. Net Promoter Score is the reference performance measurement within ancillary contextual projects based on city.people.light principles. Thought leadership over a certain period is one of the program objectives.

6.5.4) Consequences Theme:
Design as visual connector, creating an architect-focused *brand theme*

Design enables an experience of "virtual co-creation" by means of a process that connects insights generated beforehand from expert interviews, to inspiring multimedia visualizations.

The program enables connecting to key urban design stakeholders generating PR, innovation and knowledge sharing benefits, establishing an "Architects' Approach" brand theme*. Suboptimal conversion into concrete impact is due to company conditions. A storytelling* brand theme *is created, as a multipurpose approach to target architects, in order to generate both innovation assets and PR visibility. This leads to the definition of a distinctive, however managerially underleveraged, specific "Architects' Approach". Authentic thought leadership is generated for the benefit of the business unit through a self-generated program, beyond what can be purchased as an outsourced service. The program has an apparent educational role in teaching stakeholders how to perform lighting design, however this constituency is not measured in terms of performance assessment.*

The program is unique in addressing professional stakeholders and it enables improvements in the portfolio and then in the relationships, resulting in perceived leadership for the corporate business unit. Innovation loops based on multidisciplinary interaction with stakeholders are key. The program has an important role within the management of these loops. Visual content, as generated and published within the program, is copyright-free for re-use within spin off projects.

CONCLUSIVE NOTE

A first response to the Key Research Question in Chapter 6 was exclusively related to the 1996 city.people.light approach and collateral or ancillary projects. Focused on "Design" as semantic reference, this Chapter 6 did not focus on to the actual "research objects", hence only valid as preliminary background. It did require the ability to first of all establish to what extent and under what conditions city.people.light can be identified as manifestation of a "design process", both at creative as well as at organizational levels, to embody the visioning and envisioning of (preferable) futures. This resulted in the

selectively coded Storylines above representing both outcome of the chapter and proof of this crucial probing point. What matters in this chapter is the "mosaic" construction of different angles and viewpoints, all contributing to the basic understanding of city.people.light in its different facets. The final synthesis of findings, as extracted from Selective Coding is represented by the below Themes and specifications:

"Causal Conditions Theme:
Design Leadership, Marketing Focus

Design takes the lead in creating insights by processing expert interviews, and then presenting such insights visually, in order to challenge the current status quo of "High Tech".

"Strategies Theme:
Design as B-to-B knowledge manager and network switcher

Design generates a program with hybrid elements from R&D (research) and strategic marketing, progressively opening it up in its second edition to external stakeholders. Design creates a thought leadership foresight framework to successfully study, anticipate and leverage a deep understanding of urban change, involving both senior and younger architects within major architectural firms, in order to envision innovation solutions that will happen over time. Student involvement is not part of the approach. The program is designed for business-to-business purposes, therefore it does not include any citizen, student or open participation. Although such participation might be desirable, interactions with business stakeholders represent the core value of the program".

"Context Theme:
Design as intellectual partner in a multidisciplinary platform

The program is based on High Design principles. High Design elevates "design" to a higher master planning role than product design. Integrating technology, sociology and other knowledge, in order to generate insights and experience flows. Spin offs based on the methodology are designed and executed, according to diverse interpretations of the program blueprint. The value of "design" within the program lies in its intellectual capital (e.g., relating to thought leading interviewees, steering the process beyond immediate applications, consistently integrating workflows within existing tools to achieve continuity with the past)".

"Consequences Theme:
Design as visual connector, creating an architect-focused *brand theme*

Design enables an experience of "virtual co-creation" by means of a process that connects insights, generated beforehand from expert interviews, to inspiring multimedia visualizations".

The above Themes will be further leveraged as background and reference in Chapters 7 and 8 as they constitute a preliminary insight in the history and context of the program and a foundation for the development of the specific "product" and "process" Themes to be exposed to the Sensitizing Concepts. Additionally, reviewing the Open Codes behind Generative Subcategories and Axial Themes above, it is possible to identify three areas

of potential interest as outcome of the historical and contextual analysis of city.people.light:

a) former managerial Key Performance Indicators of city.people.light were formally Net Promoter Score (NPS) (Context, 2012) and budget management (Context 2012, 2008 and History 1996-1997), with also the productivity in terms of innovation roadmaps being mentioned at a later stage. As much as city.people.light might be theoretically and empirically described as a "design process and "knowledge" generation program with networking purposes, its perceived success or not depends on corporate evaluation standards;

b) the financial ownership of city.people.light for the 1996-1997 edition empirically appears ambiguous. With contradicting statements recorded in different interviews, attributing it partially or totally to the business unit or the service unit, between Philips Design and Philips Lighting. In this respect one might wonder, in terms of attribution and ownership, to what extent city.people.light is organizationally a "Design" process (as initiated and managed by Philips Design) proprietary process and to what extent it is a "design process" (as based on Grudin's, Flusser's and more theoretical definitions of "design"). In anticipation of the next Chapters 7 and 8, also based on "insider's insights", one might consider how any potential budget ambiguity was eliminated since 2006, when the budget ownership has been firmly in the hands of Philips Lighting;

c) "Design Thinking" was identified as the key modality governing city.people.light, especially in the critical relationship the approach established with technology as both scientific applied realm as well as organizational company departments and roadmaps, in line with the principles of High Design. The impact of design research methodologies, historically extended to workshop management, was derivative of High Design practices ("*Vision of the Future*") and in line with the multidisciplinary tradition of Philips (1960's "Wild Cats" teams).

As historical and contextual introduction to the first "research object", namely the city.people.light book, it might be indicated that even in a specific and ancillary context like the Strijp-S project of the Eindhoven Municipality, the city.people.light book remains central in the "High Design discourse", even when referenced only for purpose of conceptual / visual continuity, without any practical impact. Besides such applicative uses the "book" editorial format is a recurring item in the construction of city.people.light discourses from higher-level viewpoints. For example, in relationship with the educational ambition of the program, which is the object of a number of sponsored activities and programs in the industry, as a key component of its unique selling point where city.people.light generates peculiar value. The book might be seen as constituency of city.people.light "educational power" as its longer term memorability was even confirmed by Philips (former) staff members, for whom city.people.light actually represented one of the very first (and most positive) educational encounters with Philips as a brand and as a company, almost a pivotal moment in the "coming of age" of a lighting designer, even prior to her actual employment and related training opportunities in the approach. In this respect, the book appears to be a primary vehicle of knowledge dissemination and a key tool to reach as diversified as possible audiences, including students.

The genesis of workshops, historically being in 1996 internal and focused on the interpretation of the FutureConceptLab matrix by Philips Design staff, was a unique moment in city.people.light history, as from the second global edition workshops were to be opened to external stakeholders, and in such modality, to accelerate towards applicative concepts; as staged with the "Architects of Light" 2012 Polish ancillary marketing program. In the experimental work of 1996, Philips Design internal workshops, the second "research object" within this PhD study, to be covered in Chapter 8, generated a number of visionary ideas apparently related more to the field of fine arts than to industrial mass production. However, sometimes such ideas turned into feasible business propositions, having anticipated fundamental technological shifts, in what seems once again a perfect narrative for Horizon 3 innovation (disruptive concepts beyond the borders of current industry categories). Indeed, from visionary concepts to product innovations a fuzzy line of continuity appeared to exist, one that sometimes appeared blurry beyond any managerial grip. Starting from such assessed need to leverage city.people.light towards new applications in the next industrial catalogues of Philips Lighting, this Horizon 3 of "disruptive innovation" is normally the most challenging for corporate organizations.

As introduced at the opening of this chapter, it is not the purpose to perform any theoretical development on the basis of the above chapter and of the codes, categories and propositions that it generated, neither to expose the resulting Themes to the Sensitizing Concepts directly, however it is possible, for sake of completeness, to provide a few comments related, in terms of referencing, back to theoretical tensions and dimensions. The following notes can be extracted as preliminary observations:

a) the 1996 city.people.light approach and a number of collateral or ancillary projects emerged from empirical research as a para-scientific discourse in communication assets and media. However, its process and constituencies present stronger affinities with humanities in terms of storytelling and narratives of preferable futures. With the peculiarity of being a repeatable yet not falsifiable research process, without any quantitative methodology being applied;

b) the 1996 city.people.light approach and a number of collateral or ancillary projects emerged from empirical research as a participatory discourse focused on stakeholder involvement, yet with strong elements of individualism in terms of praxis and with a selective approach designed to limit access to the program according to professional and business priorities;

c) the 1996 city.people.light approach and a number of collateral or ancillary projects emerged from empirical research as design-driven innovation processes, with operational and strategic similarity to Action Research theory and practices.

In conclusion, the purpose of the coding procedures above in their overall approach was to leverage a generative approach in exploring some immediate key Axial Themes, functional to describe city.people.light, based on the main epistemic references being constructivism and *abduction*. The structuring capacity of each single step of the coding process might retrospectively appear more or less strong, at varying degrees of accomplishment in terms of primary research analysis. These conclusions should be interpreted as introductory and orientating with respect to Chapters 7 and 8; where "research objects" will be analyzed. With respect to the next Chapters 7 and 8, this

chapter 6 maintained an editorial reference back to 1996 and 1997. When the PhD researcher was not directly involved in city.people.light or to ancillary projects where the PhD researcher was not involved beyond a testimonial role. Whereas, city.people.light products and processes were analyzed in the next chapters on the basis of materials and processes that were explicitly directly conceived and managed by the PhD researcher. These will be presented from various primary and secondary research sources, including both the same interviews behind this Chapter 6 as well as extant documentation, recordings and various research "objects", e.g. the 2006 and 2014 city.people.light books.

SECTION III
EMPIRICAL ANALYSIS

CHAPTER 7
CODING: THE COMMUNICATION PRODUCT (STRUCTURAL MOMENT) OF CITY.PEOPLE.LIGHT

NAVIGATOR

- to be expected in chapter 7:
  products 2007–2014 (structural moments of city.people.light: books): Open Coding; Generative Categories and Propositions; Axial Coding (key axial category: "Product / Book"); Selective Coding.

- references from earlier chapters that enable understanding of the chapter:
  Chapter 4 (High Design, city.people.light, urban futures matrix), Chapter 5 (epistemology and methodology for empirical primary research), Chapter 6 (Selective Coding); Introduction to Section III.

- position / role of the chapter in the PhD study overall sequence:
  empirical / analytical, with focus on primary data processing.

- why the chapter is relevant:
  providing key empirical findings from primary research.

- to be expected after this chapter:
  grounded theory empirical analysis of "research objects" (processes); Section III Cross-Axial Confrontation (cross-referencing of empirical findings).

CODING EDITORIAL SEQUENCE
Empirical Data: 13 Expert Interviews (Purposive Sampling) based on Item list

Section III, Chapters 6, 7, 8, plus Cross-Axial Confrontation
Three Coding Streams: 1) History / Context, 2) Product, 3) Process

First Step: Prefigured Coding (History / Context, Product, Process)
(based on Item List, in order to fragment transcripts)
Outcome: ***Prefigured Codes***, Appendix A

Second Step: Open Coding (History / Context, Product, Process)
(based on Prefigured Coding content, prioritized to generate Open Codes)
Outcome: ***Open Codes***, Chapters 6, 7, 8 and Appendix B

Third Step: Open Coding (History / Context, Product, Process)
(based on Open Codes, clustered to form *Generative Subcategories*)
Outcome: ***Generative Propositions***, Chapters 6, 7, 8, and Appendix C

Fourth Step: Axial Coding (History / Context, Product, Process)
a) Based on Generative Propositions.
b) Analyzed by mean of three Key Axial Categories; Design, Book, Workshop.
c) With constituencies; Causal Conditions, Strategies, Context, Consequences.

Outcome: ***Themes***, Chapters 6, 7, 8

Fifth Step: Selective Coding (History / Context, Product, Process)
(based on Generative Propositions, aggregated).
Outcome: ***Storylines***, Chapters 6, 7, 8

INTRODUCTION

In Chapter 7, by mirroring the methodological steps enacted in Chapter 6, this PhD research will enter into the domain of "research objects" analysis, for the exploration of "History" and "Context" of city.people.light. Leveraging Chapter 6, however indirectly, it is possible to start with the historical and contextual awareness of the Themes identified for city.people.light 1996-1997 and for selected collateral urban outdoors projects, with specific focus on "Design" as referred to the Key Research Question of this PhD:

"Causal Conditions Theme:
Design Leadership, Marketing Focus

Design takes the lead in creating insights by processing expert interviews, and then presenting such insights visually, in order to challenge the current status quo of High Tech".

"Strategies Theme:
Design as B-to-B knowledge manager and network switcher

Design generates a program with hybrid elements from R&D (research) and strategic marketing, progressively opening it up in its second edition to external stakeholders. Design creates a thought leadership foresight framework to successfully study, anticipate and leverage a deep understanding of urban change. Involving both senior and younger architects within major architectural firms, in order to envision innovation solutions that will happen over time. Student involvement is not part of the approach. The program is designed for business-to-business purposes, therefore it does not include any citizen, student or open participation. Although such participation might be desirable, interactions with business stakeholders representing the core value of the program".

"Context Theme:
Design as intellectual partner in a multidisciplinary platform

The program is based on High Design principles. High Design elevates "design" to a higher master planning role than product design. Integrating technology, sociology and other knowledge, in order to generate insights and experience flows. Spin offs based on the methodology are designed and executed, according to diverse interpretations of the program blueprint. The value of "design" within the program lies in its intellectual capital (e.g., relating to thought leading interviewees, steering the process beyond immediate applications, consistently integrating workflows within existing tools to achieve continuity with the past)".

"Consequences Theme:
Design as visual connector, creating an architect-focused *brand theme*

Design enables an experience of "virtual co-creation" by means of a process that connects insights generated beforehand from expert interviews, to inspiring multimedia visualizations".

With this foundation in the background, chapter 7 might start with the awareness of a few key points, as extracted from implicit knowledge of the PhD researcher, based on his earlier consulting tasks, until 2009 with the service unit as Design Director, and afterwards, on an independent basis:

a) Philips Design, the service unit, was positioned as organizationally leading, however actual owner was Philips Lighting, the business unit. This budgetary dialectic will be maintained in balance until the 2007 book, to be then modified with the radical substitution of Philips Design with external consultants and contractors. What remains unchanged is the corporation, Philips;

b) The knowledge management and network switching function, likewise, remained with the service unit for the creation of the 2007 book, being totally transferred to the business unit and its contracted independent consultants from 2010 onwards. In 2006, it can be recalled from verbal dialogs within the team that the networking penetration and relationship skills management had been paramount for the business unit to maintain the administrative relationship with the service unit;

c) While the city.people.light platform maintained its intellectual nature largely credited to Philips Design (expert interviews, trend analysis, editorial task), the "design capability" started being transferred to the business unit. In particular, already in 2007, the business unit outsourced the actual graphic design of the book to a third independent firm, for cost management reasons, and in 2007 its managers were credited as co-authors of the book, to establish a sense of shared ownership, given the communal work. Consistently, in 2014 the book was co-authored by two independent consultants, one of them being the PhD researcher, to guarantee a less corporate profiling to the publication;

d) Both the visual prominence and the connecting nature of city.people.light were maintained across the decades and across flagship programs and ancillary projects. This resulted in the brand theming to be maintained as consistent and continuous within equivalent parameters as the ones described as "Architects' Approach" by interviewed experts referring to 1996-1997.

Based on the empirical data analyzed in chapter 6 it is possible to confirm the hypothesis that city.people.light was originally established by the service unit, Philips Design, as a design program, based on Design Thinking and within the postmodern discourses of design. The hypothesis is that design characteristics of the program might have maintained within their equity intact through the years and the various editions. Whilst at organizational level the first focus of the ownership and involvement later, organizationally, shifted from the service unit to the business unit. The external observer or even the professional stakeholder mostly used to refer to the corporation as one brand without distinguishing between units and to the program as a *bran theme* or at least manifestation of such a brand, might not even realized this paradigmatic shift from

an internal perspective. If this hypothesis was correct, city.people.light maintained its "design discourse" quality, even progressively phasing out from the portfolio of Philips Design. Possibly leading to a second and final hypothesis, namely that such "design discourse" might exceed the organizational boundaries and administrative limits of "design organizations". Or, in more direct fashion, the idea might be probed, that one does not need to be a designer to perform design.

The above hypothesis appears especially relevant in an example of how the city.people.light book can be presented and defined in extant materials. It is valuable to refer to the press release prepared by Philips Lighting, the business unit, on occasion of the launch of the 2014 *"Create the Livable City"* book, performed by the PhD researcher on 02/04/2014 during the Light & Building fair in Frankfurt, at the presence of Philips NV (corporation) President, Frans van Houten, and of the Philips Lighting CEO (business unit), Eric Rondolat. Given the importance of the setting (the most prominent trade fair in the lighting sector in Europe) and the presence of 75 qualified stakeholders, the press release can be expected to be edited with the maximum accuracy, from its title and incipit:

*"**Urban futures - Philips lights the way into tomorrow's cities.** Philips Lighting launches a new urban futures research book called Create the Livable City, with visionary insights that will transform our future view of cities during day and night. While urban lighting design is central to this new publication, this is also a book about our cities from spatial, social and cultural points of view"* (2014, Press Release, Royal Philips NV).

The strong references and lines of continuity with the earlier editions of the program are highlighted with great prominence, to signify the ambition to maintain the aforementioned *brand theme* rooted in its history:

"The book is the successor to the two previous city.people.light editions of 1996 and 2007, which reported on Philips' global research programs. Since then, whole new lighting concepts have been created as next-generation urban lighting solutions, such as FreeStreet and LumiMotion. These concepts have inspired many more urban professionals to participate in the city.people.light program. A program that encourages cities and specifiers to think beyond industry and conventional boundaries in order to create innovative and exciting urban lighting solutions, which respond to the key trends in city living… The Create the Livable City book and workshops are part of the existing city.people.light program The city.people.light program is intended to be a platform for everybody involved in urban development and lighting to envision, exchange and be inspired to progress towards a better use of light contributing to livable cities in the years to come. The initiative promotes remarkable and creative lighting projects worldwide that improve the relationship between a city and its people by the use of light (this is yearly deployed via the city.people.light award contest)…" (2014, Press Release, Royal Philips NV).

A specific connection is herewith publicly made between the program and the book as key communicative and structural moment within the program and the roadmap (product innovation), the networking interest (CRM) and the thought leadership, with socio-cultural dynamics (trends) at the center of the *brand theme*. In short, the entire rationale of city.people.light might be captured in these few promotional paragraphs, written as a news alert to inform press and professional audiences. Even more specifically, the position of the book in this value chain is reiterated and clarified:

"The new Create the Livable City book examines urban future trends, in an attempt to both improve the lighting of the cities of today, and also to understand, anticipate and influence the livability of the cities of tomorrow… The results of these works are now published, with in-depth analysis, lavish illustrations and images of the workshops. The book is likely to become required reading by architects, urban planners, lighting designers and indeed anyone with an interest in urban development. Its four sections clearly identify essential information on trends in urban lighting, such as 'greening' of cities, leisure venues with multiple purposes, lighting to transform anonymous structures into attractive, playful places, sustainability in its broadest sense, the replacement of redundant icons with green areas, softer and more organic advertising and lighting connected to hand-held devices, handing lighting control over to citizens themselves… The Create the Livable City book and workshops are part of the existing city.people.light program… The city.people.light program is intended to be a platform for everybody involved in urban development and lighting to envision, exchange and be inspired to progress towards a better use of light contributing to livable cities in the years to come… Both program and book should therefore be regarded not so much as a point of arrival but as the starting point for future elaborations on the various themes presented in the book's four sections". (2014, Press Release, Royal Philips NV).

Although it unfortunately exceeds the methodological focus and the actual scope of this PhD study it might be an interesting and fascinating exercise to semantically compare the above text, managed and drafted in 2014 by executives who had nothing to do, directly, with the first 1997 book, and the quotes by interviewed experts who were actually part of that first program and its very first publication, in order to verify the magnitude of textual correspondences. Of course, it should not be forgotten that the above statements, as much as valid, represent the point of view of the business unit in its promotional effort. Therefore, it would be surprising if they included any critical or negative implication. For a more objective appraisal of the "research objects" and for a more realistic storyline, the examination of primary interviews is due. Given this high degree of continuity, the focus of this chapter lies in the mixed method approach defined for this PhD. This time coding steps will be a backbone to investigate topics like "what" city.people.light delivered in terms of communicative output as structural moments (the books) and "how" in terms of generation of such content. Specific attention will be on probing the content, the perception and the distribution of the editorial products (therefore addressing city.people.light general process issue only when connected to the books).

In particular, as anticipated in the general introduction, Chapter 7 will focus on the city.people.light book as a communication product:

- communication *of (urban futures) scenarios and concepts, with key category focusing on the "book" as product designed as structural moment to channel and communicate city.people.light findings;*

The city.people.light books are herewith meant as strategically structural moments in the "city.people.light" "white book" printed in 2007 (based on the cover color) and in the *"Create the Livable City"* book published in 2014, as introduced and specified (Chapter 5 above).

Chapter 7 will rely on the following extant documents and existing assets:

- 13 interviews with qualified respondents performed in Nov. / Dec. 2013
- book as published in 2007 with design sketches and analysis
- book as published in 2014 with design sketches, photographic materials and analysis, including philology of concepts related to 2007
- transcripts of 13 thought leader qualitative interviews 2006
- transcripts of 8 thought leader qualitative interviews 2011 – 2014
- presentations, trade articles and other collateral assets

It should be noted that, as extract from the Polish ancillary program, the sole workshop held in Wroclaw during the "Architects of Light" Polish program will be referenced, as included in the 2014 book without mentioning any differentiation from the European workshop series comprising events in Bratislava, Copenhagen, Turnhout, Dubrovnik and Glasgow. The distinction should be made between "Architects of Light" as a program, designed and executed to be ancillary to city.people.light, and the specific Wroclaw visual materials, re-conceptualized in line with the editorial requirements of the 2014 European book. It must also be specified that at the moment of conducting the 13 interviews above, the 2014 book had not yet been published. Although it had been fully written, edited and consolidated in terms of its visual selection by its authors, Tapio Rosenius and the PhD researcher. Interviewed experts involved in that specific production were therefore aware of the prospect existence, as planned in terms of intent since 2010, of this new book and of its substance, at least in general lines.

Chapter 7 will be framed in the following editorial execution, supported by a number of features, operations and procedures:

- insights on the 2007 editorial product and 2014 editorial product
- coding from interviews (primus inter pares) specific for Chapter 7
- analysis of the Open Coding preliminary insights
- Axial Coding, based on processing Generative Propositions
- Selective Coding, as final wrap up.

The two books that jointly constitute the "research object" of this chapter were described in their technical aspects, according to a critical realist principle, as part of Chapter 5 above, where their physical presence was represented in terms of editorial parameters. Chapter 7 will partly pertain the physical, textual and visual presence of two books, "city.people.light" (2007), by Bevolo, Pereira, Venzke, and *"Create the Livable City"* (2014) by Bevolo, Rosenius. Points of differentiation or explicit points of continuity between 2007 and 2014 will then be highlighted and described. Recalling the "critical realist" component in the mixed method adopted by this PhD, the following similarities apply to the two books, as based on implicit knowledge by the PhD researcher (who is also the editor and main co-author of the two publications) and on hard evidence in terms of objective physicality of the two objects:

a) both books were edited to be highly visual, with the support of a semi-academic text and of bibliography;
b) both books display concepts created by stakeholders during workshops, with documentation of where workshops geographically took place;
c) both books were conceived, edited and produced by a restricted business unit and consultants team, including the PhD researcher as editorial leader, the co-

author(s) (in 2007, Fernand Pereira and Maximilian Venzke of Philips Lighting; in 2014, Tapio Rosenius of Lighting Design Collective) and the Philips Lighting budget owners (in 2007, Pereira and Venzke; in 2014, Jaap van der Linden and Rinco van Rijn)

d) both books display socio-cultural trend information as valuable content, governed by the urban futures matrix and including non-attributed quotes by a number of selected and presented thought leaders in architectural design and city management;
e) both books leverage sketches as central visual element to present design concepts where current technology solutions as available in the market might or might not apply, not excluding out-of-the-box wild card visions on Horizon 3.

The two books were instead differentiated in a number of points, where the most relevant would include but not be limited to:

a) the text of the 2007 book was limited to an introduction and captions for sketches, plus an appendix, whereas the 2014 text included a substantial introduction to each concept, including historical elements relating to 2007 and a clear positioning in the urban futures matrix;
b) the 2007 book is based on four workshops, all conducted in a very compact period (September through December 2006) whereas the 2014 book displays concepts from six workshops conducted in a longer time span (2011 through 2013), including an "Architects of Light" workshop (Wroclaw, 2013), re-packaged in its visual documentation as part of the original *"Create the Livable City"* series;
c) the 2007 book was designed according to Philips corporate guidelines (white cover, Pantone blue, identity color palette) in a big "coffee table" size with hard cover (to feel heavy), whereas the 2014 book was designed outside of any corporate identity guidelines in the same smaller size of the "Architectural Journal" of London with soft cover, to enable cost effective shipment by post;
d) in the 2007 book, the urban futures matrix is simply introduced but not specified in its cells or related to the concepts, whereas in the 2014 book the urban futures matrix is central to the text and the analysis, with each cell being described as a urban futures scenario and a direct connection to each concept;
e) in the 2007 book, concepts were printed in great quantity (120), each represented by one sketch and caption only, whereas in 2014 concepts were in limited amount (23), each fully introduced and presented in multiple sketches and photography of mock up installations;
f) the 2007 book was distributed in very limited quantities by Philips directly, with a major launch event (500 attendants) branded Philips held in Rotterdam (May 2007), whereas the 2014 book was available for all audiences at an affordable price (GBP 20.00) to be purchased in design retail and generalist digital venues, after a restricted presentation to selected stakeholders (75 attendants) during the Light & Building fair in Frankfurt (April 2014);
g) the 2007 book was authored by Philips staff (Pereira, Venzke and the PhD researcher in his Philips Design role) whereas the 2014 book was authored by two independent consultants (Rosenius and the PhD researcher) and therefore possibly positioned as the independent product of a Philips research process.

The above information was available on the basis of extant materials or recall by the PhD researcher and appear mission-critical in order to contextualize the next steps in the analysis by coding, as a number of the above points might not have surfaced

strongly from the expert dialogs. The evaluation of the 2014 book, also including its different (wider) distribution approach, was still to be considered as pending at the time of execution of the primary research interviews. However, clear developmental lines and managerial directions were set for this purpose, with the integration of insights available to the PhD researcher because of his double role in the field as co-author of the 2014 book, enabling the dialog and discussion of this topic as well. It appeared critical to establish a methodological interpretation framework that will enable a systematic and combined assessment of "what" city.people.light truly is, from a "thick description" viewpoint, to then draft hypothesis of theoretical foundations where it stands. Coding will therefore offer the opportunity to create an empirical analytical framework to identify and review key features and shared elements across the two publications, starting from its preliminary procedures of Prefigured and Open Coding.

7.1) OPEN CODING:
COMMUNICATION AS STRUCTURAL MOMENT OF CITY.PEOPLE.LIGHT (BOOK)

In a first wave of Open Coding the interviews and their preliminary transcript fragments were filtered through the grid of selected Prefigured Codes, as derived from the theory from Chapters 1 through 4, and the item list, and presented in the introduction above. As with the rest of the coding procedure, this step will be focused on the essence of the "Central Phenomenon" (Creswell, 2013, 196), establishing appropriate introductory context:

"The Central Phenomenon is identified as the research-based process of creation and subsequent communication (through editorial products) of scenarios and concepts in postmodern times (with the initial claim that city.people.light is an application of the High Design approach, the latter being a specific proprietary people-focused, future oriented, design management process by Philips)".

The two guiding questions for the Open Coding, therefore, as adapted on the basis of bibliographic sources to address the "communication" part of the Central Phenomenon, namely city.people.light structural moments of consolidation, will be formulated as follows:

1.1 What was the city.people.light product in 2007 and 2014?
1.2 How did the process leading to product unfold?

It must be then reiterated how the above introduction was provided as being based on extant materials, personal memoirs and the "critical realist" description of the two books operated in Chapter 5. It is now possible to complement it by a synthesis of key points to describe the actual editorial products as based on open codes extracted by means of Prefigured Coding. Then, the analysis will shift to the constructivist reconstruction of how multiple viewpoints define such products in terms of interpretation, to end with an Axial Coding exercise, processing Generative Propositions. The coding procedure remains exactly the same as described at the end of the Introduction to this Section III, therefore progressively going from Prefigured Codes to Open Codes, from Open Codes to Generative Subcategories and Propositions, to then enter the Axial Coding phase, with the clustering of proposition into Themes and the Selective Coding phase, with generation of selectively coded Storylines. Just as in Chapter 6, the turning point from treatment of textual materials from primary interview quotes to PhD researcher own

elaborations and synthesis, is the passage from subcategories (clusters of codes directly substantiated by transcript materials, as recorded from dialogs) to propositions (sentences and lines based on synthesis and interpretation of keywords and concepts across codes and quotes, as operated by the PhD researcher). The same principles in terms of semantic identification and numeric sequencing of the primary materials, to enable backtracing from axial codes all the way to the original Prefigured Coding related quotes, apply as well. In the Open Coding paragraph, immediately below, selected codes will be again presented in the form of partial or fragmented quotes. Main purpose remains that of injecting the direct "own voices" of interviewed experts into the main textual stream of this PhD. As per Chapter 6, all fragments can be traced back to Appendix A by means of their coded unique numeric identifier, in their transitional text status (prior to final Open Coding selection, visible in Appendix B). In short, all procedures as described in the introduction to this empirical section and adopted in the above Chapter 6 will fully apply, including the archiving logic in three Appendixes A, B, C, at the end of this PhD study, and therefore no further detail will be repeated.

Open Coding: Early Findings Overview

Within the constructivist epistemic, the convergence of viewpoints, opinions and insights as recorded in the interviews and filtered by preliminary coding above. The "city.people.light" book as an object might be described according to a number of points; including:

a) thought leadership content, focused on future solutions;
b) visualizations based on insights;
c) visualizations aimed at playing an inspirational function;
d) visualizations expressed by means of sketches;
e) content based on critical mass of workshop output;
f) source of functional knowledge and somewhat monitoring;
g) based on structured analytical semi-academic knowledge;
h) technical knowledge;
i) based on research;
j) falsifiable, because based on the urban futures matrix.

The general storyline that emerges from the above is one of education and inspiration for relevant target audiences, based on critical urban challenges. Within the city.people.light books the function and qualities of the urban futures matrix were identified as follows:

a) tool to keep track of the approach over the subsequent editions;
b) underlying structure unifying the entire study;
c) object of updating over time with new insights;
d) flexible;
e) scalable.

The Key Performance Indicators connected to the book were identified as follows:

f) publication of architect's interviews;
g) interaction with the target audience;
h) conversion of selected content into solutions roadmaps (two to three ranges);
i) PR visibility on the specific *brand theme;*

j) leadership in the market.

Scaling up from the book as a single episode to the series of books as a regular manifestation of a coherent research platform, in terms of validity of the forecast, implying the shelf life of the book as its content repository, a time frame of 10 to 5 years was indicated as the "natural rhythm" to refresh the study: [7.7.2 FORECAST VALIDITY *"…five years old, that we are hardly in need in a follow-up. So, these think-tank activities should be in a rhythm, which is more or less, between five or ten years, but not longer. […] Because then you miss - then you miss a lot, then there will be certain gaps we cannot fill anymore, because the city is also a living thing, it is running, so we need to take decisions and we cannot wait in the decision making process for a longer term than a political term, so four years [foreign] bijvoorbeeld [/foreign]. So, 5-10 years, and then you need updated visions on a very high abstract//…"* – Rik van Stiphout *(on general approach)*]. This planning requirement was reflected in the managerial decisions related to the publications of city.people.light books: 1997 (global study based on FutureConceptLab approach, with sketches and concepts by Philips designers), 2007 (global study based on simplified approach, with sketches and concepts by external stakeholders), 2014 (European specified refreshment of the 2007 approach, with sketches, concepts and mock up's by external stakeholders): [7.7.1 FORECAST VALIDITY *"So we said, we are gonna reinitiate a study, a follow up, because we promised that to the market and a lot of these customers are very long, they stay 20, 30 years in that market. So, a lot of them still remember the '98 exhibition, and the book and all of that… so we said we gonna make something 10 years later, roughly, that we say: ok, we are back, we will look at the past, what was written there, what has been executed and also then re-update basically the market trends and, you know, are the things still the same or, you know, what has changed 10 years later. So that was the idea…".* – Fernand Pereira *(on 2007)*]. The production of a city.people.light book is dependent on research assets and research assets require the planning and performance of workshops, with saturation point set at five to six workshops through an integrative process: [7.1.4 BOOK / WORKSHOP *"… -- A critical mass exactly, of content for this kind of book. And I think after these five workshops, with the roughly 200 participants that we went through, we have quite some good content available to create this and also make it a valuable gift in this relationship process".* – Nils Hansen *(on 2014)*]. The focus of Chapter 8 will be on such workshop process. In between each installment, the city.people.light book acted as reference for all strategic marketing purposes, as well as acting as a barter token and a networking tool, however with diverse levels of success in making it actionable.

It was highlighted in more indirect references and direct quotes during the interviews how the final editorial products are perhaps the most relevant concrete deliverables capturing the knowledge insights of city.people.light, although not a conventional one for a corporate or business unit program: [7.1.1 BOOK *"…It is not – we are not in the book business, it was not about making a book only, but it was just that that would lead to something else – and that we would revisit and keep it always alive, you know, and then of course maybe with different angles, maybe different workshops, like 'Create Sustainable Cities' or, you know, other kind of programs that are derived from that same umbrella approach about outside-in, you know, views from key stakeholders into the program, always blend some more higher level intellectual analysis in a way to create some structure and to create some more in depth analysis of what has been discussed with these stakeholders".* – Fernand Pereira *(on 2007)*]. Here, it can already be appreciated how the city.people.light 1997 books were not simple PR or marketing or

knowledge sharing tools aiming at external audiences, representing instead an actionable record of stakeholder-generated insights, for further development. The thought leaders and expert interviews (2006 and 2011–2014) were identified as the source of insights, to be liberated by means of the visualizations. The "city.people.light book" as a communication product is based on the entirety of meaningful visual assets generated by the workshops, without censorship or elimination of any surplus or relevant materials. The key discriminator between the 2007 and the 2014 book is the presence of mock up photographs based on contemporary technology: [7.14.1 MOCK UPS / PHYSICAL OBJECTS *"You can really see it from the end results. So, we are going through this sort of a lighting technology trend moment now, where a certain kind of digitalized technologies, like colour mixing and LED based stuff is now coming through very strongly – and all that kind of equipment was available - including the basic lighting controllers and stuff like that. They were used extensively and they were in very many cases really driving the visual end-result to a point that we're seeing in an enormous amount of saturated colour and stuff like that - they - that were not necessary very well argued - why is that kind of saturated colour there - and it is primary there because you can do it, so the technology allows for that to happen. So the technology took a very central role".* – Tapio Rosenius *(on 2014)*]. This physical presence, manifested in photographic records, was the most impacting visual evolution of research content from the 2007 edition.

In terms of key performance, since the first 1997 book media-relevant narrative motives were identifiable both intrinsically *"within"* city.people.light as well as extrinsically, as triggered *"by"* city.people.light, with thematic focus on quality of life, city branding and the strategic value of light. It might be recalled how, on one hand, the ambition of the program and its books as main deliverables is to express "thought leadership" – therefore profiling city.people.light and Philips into more generalist media packages, beyond plain marketing communication, as "intellectual partner" of architects, urbanists and other selected business to business audiences: [8.1.1 THOUGHT LEADERSHIP/FUNCTIONAL KNOWLEDGE *"So that means that one of the conditions that I said to the team, so involving Research & Development guys and also Product Management, they have to embark in that project together with us, and not just like a pure marketing – or Marketing Communications story, so the objective is much more than just a thought leadership and say: yes, look, intellectually how Philips can be somehow… also your intellectual partner in some kind of discussions about master planning, future of cities and this kind of stuff, but more as well to say: Ok, what is the promise we can make to the market? Saying: Yes, based on these trends we will actually execute and that should influence part of our product portfolio".* – Fernand Pereira *(on 2006)*]. On the other hand, the opportunity also existed, to re-package findings into the triggers for innovative organizational practices, by nature less generalist and more quantified in measurable objectives: [7.1.6 ROADMAP *"It was already clear beforehand how we were gonna integrate whatever comes out of that research in the roadmap, so there was like – […] There was already – I can tell you, I remember these discussions were, even in our budgeting process we had two projects in the roadmap, the official innovation roadmap, that were empty boxes called: city.people.light concept one, city.people.light concept two, city.people.light concept three. […] Whatever that would come. So there was even reservation in the budget saying… – […] upfront. Before city.people.light forum, you know. So that we said: Ok. And that – and also the level of commitment, we said: Something would come out of that research, otherwise, you know, it would have – if we say after the whole research again and the book and all of this, nothing would come out of that that would land in our product portfolio, then we would*

make a big mistake". – Fernand Pereira *(on 2006)*]. Also, as anticipated, at a much more mundane level, important aspects of performance assessment pertained the simple production capability to publish within planned deadlines: [7.2.2 ROADMAP / DEADLINES *"But there other KPI's, so one was that the book has to be printed on time, ja, so, for that event. Because the event in Rotterdam* [NOTE: in 2007], *the date was fixed quite in advanced. So there was no other choice but to meet the deadline. So, that was one, and that put quite some people under pressure, to deliver content on the book and, you know – I think that you remember these times, having to deliver some content. So, that is one KPI, the other KPI was also the number, as I said before, the number of projects that we land in some roadmaps".* – Fernand Pereira *(on 2006)*]. It might be possible to conclude that the performance measurements related to city.people.light books are structured according to multiple expectation sets, from "hygiene factors" like cost management, that would apply to any project, to benefit at outcome level, that can be only enabled by the exceptional nature, in the context of the business unit, of the step of publishing a book.

Within the context of generic and general company narratives (brand vision, public relations, marketing campaigns), sometimes privileging financial or engineering priorities, the inspirational and actionable status of city.people.light books stands as memorable and unique, however related to niche audiences: [7.15.1 UNIQUENESS / CREATIVE LEADERSHIP "*…. […] Competitors told me. Ja, Thanks for the book. Because we really now have done something. That's – but that is leadership, I mean, ja. Then you are copied, fine, but the original and the history, and that is why it is used now like kind of a sub-brand, although I don't like that word, but it is like, you know, it has some value, because of that history".* – Fernand Pereira *(on 2007)*]. The combined effect of visual and textual solutions, structured by means of editorial design, resulted in impactful statements, especially based on sketches: [7.1.3 SKETCHES / MOCK UP / DESIGNER: *"…the mock-up is – I don't feel like they actual – you know what we made – I think the sketches are ok, because they just show sort of ideas. And they are important. I looked a lot at the sketches from city.people.light and I think from that - they were made from all over the world and I find it very interesting to – from the first city.people.light book. So, I do think that the sketches are very important to see how actually the designers are thinking".* – Kristin Bredal *(on 2014)*]. The two books benefitted from an increasing effort of editorial nature pertaining their textual dimension. With the addition to the 1997 format of trend analysis, appendixes, bibliography (2007) and furthermore, of methodological and historical reflections (2014), an ambition was set towards more "academic" or at least deeper textual content articulations. Such evolutions, that some might consider an improvement and some might consider detrimental to the corporate focus of the books, did not change the overall constructed perception of city.people.light being a visual product. Its equity namely being eminently visual, as based on sketches (2007) and sketches/ photography of mock up's (2014). In this respect, the choice of a visual format is a strategic modality of simplification and integration of knowledge, resulting in clear and actionable meaning-making. Through the last decade, it could be directly observed (by the PhD researcher in his consulting capacity) how city.people.light (as a futures research platform) consistently aimed at a para-scientific storyline, associating its products and programs to academic and repeatable formats (endurance), grounded in its formal nature, as High Design manifestation.

Furthermore, it might be added that the more specific "scientific ambition" in terms of formal repeatability of city.people.light as based on theoretical and systematic processes was already identified in the theoretical chapters as one of its fundamental traits as well.

Within the 2007 and 2014 books the urban futures matrix manifested such ambition to present a comparable, para-falsifiable forecast, with its presence as governing tool across two decades: [7.4.1 MATRIX / ACADEMIC KNOWLEDGE *"…the matrix has helped us - and this kind of a structured analytical semi-academic way to - to approach the project from the outside is very interesting to us. So, I think, yes, we have taken some of that on board and learned from it". – Tapio Rosenius*]. Within professional networks, the 2007 and 2014 books were actually the points of departure for the adoption of both the urban futures matrix and of the general approach, as demonstrated by several references and presentations by involved stakeholders. Internally, visual elements extracted from city.people.light 2007 became "backward engineering" tokens and tools, e.g. when re-used and presented as foundation in the 2008 Strijp-S Masterplan book by Philips Design for the Municipality of Eindhoven and to scope the ambitions for 2012-2013 "Architects of Light" in Poland, as anticipated in the above Chapter 6. It appears peculiar how city.people.light as a book enabled a modular view on the program assets, comprising knowledge items of functional, monitoring and, in less prominence, reflexive nature: [7.1.11 DESIGN / REFLEXIVE *"Of course, because it helped prioritising as well, which we would have maybe more difficulty to do, and it's also – it gives that validation… If you look about concepts, then translated into product concepts, things like light without poles and this kind of stuff, these ideas are as old as lighting, as dreams, you know. These are common shared dreams, also lights like fireflies and this kind of things. So these things, everybody almost thought about them, you know. Philips Design thought about them, we thought about them, a lot of customers thought about them, you know. But it is like: Ok, so what? What do we do with that? Is that something we need to do tomorrow, do we heavily invest there? Or is it something due to – is the priority somewhere else, you know? And that helped, you know, to at least prioritize".* – Fernand Pereira *(on 2007)*]. As discussed above, sketches as governed and regulated by the matrix principles specifically offered design inspiration for further development in terms of innovation roadmaps.

7.1.1) Book as structural moment of city.people.light communication

As anticipated, when analyzing the books, a steady line of continuity emerges in the key role that appears to be played by these editorial products in 1997, 2007 and 2014, the latter two editions being the "research objects" of this PhD study. It is a line developed around the multipurpose strategy rationale and the richness of its texture. Books therefore become visionary manifestos, communication tokens, or knowledge transfer tools, according to the specific structuring moment of city.people.light outcomes. From a viewpoint of intrinsic innovation horizon of city.people.light, city.people.light could be described as delivering in the range of Horizon 1 to Horizon 2 with half decade to one decade scope, with the flexibility to include exceptions with shorter or longer term relevance, e.g. at Horizon 3 level: [7.7.7 HORIZON 3 / CONCEPT *"…Because there is a lot really high, like flying - high flying concepts, like fireflies in the air or things like that. Like invisible light or light that you could – I mean there is still the laws of physics at the moment, so there were a lot of concepts that were just already kind of really out, because it was not possible for – maybe for – you need to look at another department, maybe Philips Research in Eindhoven, that were maybe the people who need to work on these concepts, because it is really long-term".* – Jasmine Van der Pol *(on 2007)*]. Editorial choices were therefore made to ensure the combined effect of text and visuals on the reader would enable such narrative of/on the future. With the understanding that product roadmaps would need to be propelled by additional analysis of city.people.light concepts at a later stage, editorial space was granted to socio-cultural analysis, visual

enrichment (sketches, mock ups) or forward looking Horizon 3 concepts, according to a "Design" innovation focused general storyline. The "Design Thinking" storyline that emerges from the books determined the editorial requirement to give proper visibility to both interviewed experts as well as the general co-creative "litany" (Ramos, 2003, 38) that was adopted to describe the contributive design process leading to the generation of content, in terms of both sketches and text. Such participatory approach might have been reflected in the governance models of the program leading to such editorial output. Formal ownership was however firmly in the hands of the business unit, namely its strategic marketing: [7.5.3 MARKETING OWNERSHIP *"The initiative was taken on a central level – […] By me, my a fellow colleague Keith van Schooten and also Jaap van der Linden as a successor. So we actually took the initiative to set this up or to revive it actually. It is more – it is not new, it is actually making use of something that is there, and then we needed – we saw actually also the need to revive it to a certain extend".* – Nils Hansen *(on 2010 startup of* "Create the Livable City" *program)*]. This also implied that the role of authorship required precise ability to fit with the briefing received at an earlier stage, combining multiple instances and agendas with the actual business directions by the business unit, in order to guarantee the perceived integrity of the books as research output with all stakeholders.

As anticipated above, from an external perspective, city.people.light books as assets available to the public appear to be validated even by the appreciation of competitors. In the open codes, it emerged once again how "books" have constantly been key when it came to capturing, managing and segmenting knowledge in terms of findings in the form of visual and textual constructs. However, such "design" representations of preferable futures, as edited and published at the end of each program, represent a consolidation of content that by definition cannot contain all the social and cultural dynamics associated with city.people.light. The question then arises, how is knowledge management enabled across different generations of managers, designers and practitioners, at Philips? Besides the formal strategic choices described above, it must be noted how the book, in both editions, was designed to be an object of "barter": [7.19.2 BARTER *"… And I think that for Philips it was something like everybody it seems people...[…]… I think that was giving them a very, very nice tool".* – Jasmine van der Pol]. The book, with its physical existence and tangible distribution to reward, in the first place, workshop contributors and to energize, was leveraged as a formal "gift," targeting relationships to trigger dialogs across professional and personal networks. In this respect, the books became a strategic asset functional to networking, being a tangible and permanent extension of the evangelist action of city.people.light "ambassadors", e.g. the authors of the books themselves, professionals who were featured in the credits, or simple supporters of the approach. Additionally, two opposite external distribution strategies were adopted for the two books. In 2007, the book was printed and published as a Philips ISSN, without any commercialization and with scarcity of copies. The aim was to confer to the book, and by reflex to city.people.light, an aura of exclusivity, as documented by the last quote. In 2014, the book was published with its own ISBN through a London-based media company. Distributed for free as attached to an issue of the Architectural Journal and made available at accessible pricing (GBP 20 / Euro 24) through digital and selected retail, with the purpose to give it the maximum possible exposure and visibility. A comparison between the two approaches in terms of effects, results or other measurement standards is not feasible for lack of tracking data and non-comparability of the two distribution approaches, as based on opposite strategies.

From an internal company perspective, as one of the most solidly recurring features, the editorial products played a crucial role from the viewpoint of "educational purpose". Of course, the specific distribution choice of the 2007 editorial format had implications and consequences at level of internal profiling, perception and adoption. For example, it was highlighted how 2007 books were at times limited in their circulation and reach: [7.12.2 BOOK / DISTRIBUTION *"…the idea was not to make it like a – […] a brochure, exactly. It was – It is a small market in a way, because that was like, you know, probably it was like 10,000 books or, I don't know, I am not sure, but it is not like it is hundreds of thousands, so but it is not 100 neither. You know, it was a decent number of books to give to some key stakeholders, you know. So, that was not aimed to installers, wholesalers, you know. It was not like a book you give for Christmas, just because you need to give something to a client. It was really - we kept it also like: If you give it to a client it has value, you know. It – and you only give it to someone who will somehow read it, you know. And we kept it like this. That's why there is scarcity – and we managed that because – […] Consciously, yes. Definitely".* – Fernand Pereira *(on 2007)*]. This determined a limited internal exposure of the knowledge generated. In this respect, one might speak of the identification between "books" and "knowledge" as dysfunctional to wider cross-fertilization across Philips: [7.12.3 BOOK / DISTRIBUTION *"It was, ja, I don't know if that was why – I think they wanted to keep it a bit exclusive, like a "hard to get" thing. Because also the book it was a really – there were not so many of them, and it was a bit exclusive – positioned as an exclusive thing and so there was of course a whole buzz around it and people saw the book, and many people know it, but there is not – ja – it is not just possible to find it like that – […] To get that exclusiveness and that the picture of: it is really high end… it was not easy to get the images, for example. So it was for them, it was more a hassle to get it, although they were very happy once they got it because it was a great tool… – not everybody read it at Philips, I am sure…".* – Jasmine van der Pol *(on 2007)*]. These processes might have been partially influenced by the "hard fact" that, as anticipated already, the final purpose of these editorial operations was not the intrinsic publication of books but instead it was the strategic profiling and best reach for the city.people.light propositions to profile Philips Lighting with its relevant audiences. An ancillary question therefore, but not an irrelevant one, pertains the validity (effectiveness and efficiency) of books as knowledge management (distribution, cross-fertilization, activation) for city.people.light, in the specifically internal context of the business unit and the corporation. This because, in spite of the existence of the book, the relationship among:

a) Philips internal stakeholders, even the ones who operate closer to the approach, and
b) earlier city.people.light knowledge in terms of both structural materials and practices;

is generally perceived as episodic or at the very least "ad hoc": [7.1.12 REFLEXIVE *"…I think it is something intuitive. I think it is more into – it allows some people in the company to listen and to learn and I think that is something that builds up pure experience and pure vision and sort of things. Maybe they actually contradicted that could also be, that they don't agree, but it helps them developing them their own thoughts and their position…".* – Jasmine van der Pol]. In particular, personalized practices, informal islands of competence, combined with a number of initiatives structured as apparent rationalized management systems at each given time, resulting in episodic and fragmented knowledge management, resulting in the amplification of the books as milestone references. What emerges is a knowledge management context organized around books, yet on the other hand ultimately based on flexible and informal practices of archiving, accessing and transmitting records and extant documents from

past programs. The primary research materials provide indication of the potential associated with city.people.light, to generate knowledge for the benefit of Philips Lighting as a whole and in a more strategic sense, however such potential does not appear as always fully expressed.

As based on the above, one might conclude that the city.people.light book repeatedly emerged as main carriers and elements of continuity across the various stages of life of the program, even beyond natural expiration scope: [7.1.5 BOOK / WORKSHOP *"This idea was actually born out of the fact that what we saw in the workshops was really, ja, really promising. From the involvement of the people it was the idea also to create something that lasts for those people that can be – this book will be deployed to the participants of those events for sure. It is something that is, ja, somehow carrying a message of: we as Philips, we want to be a partner in the process and we understand what you are dealing with, and we want to be a part of the solution together with you, of the problems and challenges in urban development…".* – Nils Hansen *(on 2014)*]. As highlighted by a number of participants in the empirical study for this PhD, city.people.light can be seen as a *"brand theme"* belonging to the Philips Lighting universe. This means also that city.people.light as an organic and organized entity must respond to and comply with the brand requirements of Philips, in particular, tone of voice and general semiotic approach reflect the narrative practices of Philips Design, in the 2007 book. From this point of view, one might notice how city.people.light is both a manifestation of the Philips Lighting marketing strategies, where it is formally owned, as much as the more general Philips discourse on preferable futures, with its humanistic values of people-focus and research-based practices, as formalized in High Design. This multipurpose condition of complexity and multilayered richness in content texture finds its structuring moment of simplification and synthesis for meaning-making in city.people.light books, where the 2006 global edition and the 2014 European edition of comparable studies are the "research objects" below analyzed within this PhD.

7.2) OPEN CODING PROCEDURE

As based on the methodology and operationalization thereof, in continuity with previous chapters, Open Codes were generated following exactly the same unified procedural steps as presented in Chapter 6. Equally, the overview of Prefigured Coding fragmentation on transcript text and subsequent treatment of the resulting transitional textual materials is reported in Appendix A. Final Open Codes are visible in Appendix B as evidenced in underlined text. Process details will not be repeated here, they can be found in the general introduction to the empirical section, and in the same specific point of Chapter 6. A comment that is however due is how the sheer quantity of codes identified in this Chapter 7 (25) did result in it being inferior to Chapter 6 (35) and nearly equivalent to Chapter 8 (28). At the time of operating the textual analysis, it became apparent to the PhD researcher that respondents were less inclined to spontaneously mention or recall the 2007 book as experienced and their expectations for the 2014 book, based on performed workshops and the existing draft versions. Additionally, it must be mentioned that, with respect to Chapter 6, Open Codes generated for Chapter 7 are less rich with multiple semantic identifiers, resulting in the advantage of a less ambiguous analysis, less dependent on abductive choices by the PhD researcher. Given the exploratory and open nature of the interviews, staged as peer-to-peer dialog, this might be considered an indirect and implicit indication of a minor level of memorability or

perceived immediate relevance of books (structural moments of communication) with respect to the workshop practices, and of course the history of city.people.light.

Basics

7.1 ***Key outcome: what city.people.light generated***

7.1.1 BOOK

7.1.2 INSIGHTS / THOUGHT LEADERSHIP

7.1.3 SKETCHES / MOCK UP / DESIGNER

7.1.4 BOOK / WORKSHOP

7.1.5 BOOK / WORKSHOP

Functional Knowledge

7.1.6 ROADMAP

7.1.7 CRM

7.1.8 BOOK / NOT LEVERAGED

Monitoring Knowledge

7.1.9 BOOK / OUTSIDE-IN / INTERVIEWS

7.1.10 MONITORING

Reflexive Knowledge

7.1.11 DESIGN / REFLEXIVE

7.1.12 REFLEXIVE

7.2 ***Key performance indicators:***
how the value of city.people.light outcome was measured

7.2.1 BOOK / MULTIPURPOSE / OUTSIDE-IN

7.2.2 ROADMAP / DEADLINES

7.2.3 ROADMAP / PR VISIBILITY

7.2.4 ROADMAP / INSIGHTS / NPS

7.3 ***Perceived Points of uniqueness of city.people.light***

7.3.1 BRAND THEME

7.3.2 UNIQUENESS / ARCHITECTS' APPROACH

7.4 ***Educational unique value of city.people.light*** *(academic, applied)*

7.4.1 MATRIX / ACADEMIC KNOWLEDGE

7.4.2 EDUCATIONAL

7.5 ***Financial Ownership***

7.5.1 BUDGET MANAGEMENT

7.5.2 MARKETING OWNERSHIP

7.5.3 MARKETING OWNERSHIP

7.5.4 MARKETING OWNERSHIP

7.5.5 MARKETING OWNERSHIP / INNOVATION LOOP

7.6 ***Post-event / post-program applications***

7.6.1 INNOVATION LOOP / PR VISIBILITY

Futures

7.7 ***Innovation horizons*** *(Continuous innovation, disruptive innovation)*

7.7.1 FORECAST VALIDITY

7.7.2 FORECAST VALIDITY

Horizon 1

7.7.3 DESIGN / ROADMAP / HORIZON 1

7.7.4 BOOK / FORECAST VALIDITY

Horizon 2

7.7.5 SKETCHES / HORIZON 2

Horizon 3

7.7.6 HORIZON 3 / TECHNOLOGY

7.7.7 HORIZON 3 / CONCEPT

7.7.8 SKETCHES / HORIZON 3

7.8 ***Structures*** *(Workshops, Matrix)*

7.8.1 MATRIX

7.9 ***Forecasting Rationale*** *(Falsifiable Forecasting, Genius Forecasting)*

7.9.1 INTEGRATING / GENIUS FORECASTING

7.9.2 FALSIFIABLE FORECASTING

7.10 ***Forecasting Techniques*** *(Generating, Integrating)*

7.10.1 GENERATING

7.10.2 INTEGRATING

7.10.3 INTEGRATING

7.11 ***Technology*** *(High Tech, High Design)*

7.11.1 TECHNOLOGY

Product

7.12 ***Book*** *(Editorial Design, Distribution)*

7.12.1 BOOK DESIGN / SKETCHES

7.12.2 BOOK / DISTRIBUTION

7.12.3 BOOK / DISTRIBUTION

7.13 ***Storylines*** *(Narrative Practices, Para-scientific Structures)*

7.13.1 STORYLINE

7.13.2 STORYLINE / EDUCATIONAL

7.14 ***Concepts*** *(Physical objects, social spaces)*

7.14.1 MOCK UPS / PHYSICAL OBJECTS

7.14.2 MOCK UPS

7.15 ***Symbols*** *(Creative Leadership, Commercial Focus)*

7.15.1 UNIQUENESS / CREATIVE LEADERSHIP

Process

7.16 ***Relationship Managemen*****t** *(Community versus CRM)*

7.16.1 CRM

7.17 ***Openness*** *(Co-creation, Contribution - for professional stakeholders)*

7.17.1 CO-CREATION

7.17.2 CO-CREATION

7.17.3 SKETCHES / CONTRIBUTION

7.18 ***Participation*** *(Participatory, Normative – for non-professional stakeholders)*

7.18.1 PARTICIPATORY

7.18.2 COMMUNITY / DESIGNER

7.19 ***Networks*** *(programmer, switcher)*

7.19.1 DESIGN / NETWORKS / FORECAST VALIDITY

7.19.2 BARTER

7.3) GENERATIVE SUBCATEGORIES AND PROPOSITIONS

As introduced in Chapter 6 above, and as methodologically clarified in the general introduction to the entire empirical section, also for this Chapter 7 the Generative Categories were identified by clustering the Open Codes in sequential order, as based on semantic affinity related to the first word identifying each code, with the exact same procedural approach. Additionally, once again in full consistency and continuity, each subcategory was rated with a numeric value index, based on the following interpretative framework:

Index value 1 = statement is weak
Index value 2 = statement is representative of the Generative Subcategory
Index value 3 = statement is representative and editorially compact
Index value 4 = representative, compact, relevant to the key axial category
Index value 5 = statement is strong for Axial Coding purposes.

As in Chapter 6, index values express only a generic statement of appraisal and also here will have no direct impact on the Axial Coding procedure in order to maintain the research findings as much as possible representative of all the opinions recorded in the original transcripts. For the rest, all methodological considerations and operational notations made in Chapter 6 apply to the following coding step.

Generative Subcategory 7.1:

7.1 Generative Proposition (5):

The book is designed as a solid reference at a higher intellectual level, incorporating multi-faceted insights from thought leaders' interviews (outside-in approach) with a critical mass of content generated in workshops. The book is distributed in limited quantities as a precise marketing strategy. The book is validated over time.

7.1.1 BOOK
7.1.4 BOOK / WORKSHOP
7.1.5 BOOK / WORKSHOP
7.1.8 BOOK / NOT LEVERAGED
7.1.9 BOOK / OUTSIDE-IN / INTERVIEWS
7.2.1 BOOK / MULTIPURPOSE / OUTSIDE-IN
7.7.4 BOOK / FORECAST VALIDITY
7.12.1 BOOK DESIGN / SKETCHES
7.12.2 BOOK / DISTRIBUTION
7.12.3 BOOK / DISTRIBUTION

Generative Subcategory 7.2:

7.2 Generative Proposition (4):

The program delivers insights and trends, to be leveraged by segment marketing to generate future propositions.

7.1.2 INSIGHTS / THOUGHT LEADERSHIP

Generative Subcategory 7.3:

7.3 Generative Proposition (4):

Sketches are produced in collective context with facilitation, and are mission-critical to gain insights both in the vision of individual designers as well as in future developments. Sketches represent the barter value for the corporate business unit.

7.1.3 SKETCHES / MOCK UP / DESIGNER
7.7.5 SKETCHES / HORIZON 2
7.7.8 SKETCHES / HORIZON 3
7.17.3 SKETCHES / CONTRIBUTION

Generative Subcategory 7.4:

7.4 Generative Proposition (3):

The program is designed with the confidence to generate at least two innovative product propositions as part of the corporate business unit roadmap. This is translated in a specific KPI.

7.1.6 ROADMAP
7.2.2 ROADMAP / DEADLINES
7.2.3 ROADMAP / PR VISIBILITY
7.2.4 ROADMAP / INSIGHTS / NPS

Generative Subcategory 7.5:

7.5 Generative Proposition (5):

The book is distributed and received within the business unit as an opportunity to improve corporate profiling and customer relationships.

7.1.7 CRM
7.16.1 CRM

Generative Subcategory 7.6:

7.6 Generative Proposition (4):

The monitoring and reflexive constituencies are an important part of the program.

7.1.10 MONITORING

Generative Subcategory 7.7:

7.7 Generative Proposition (5):

Design provides support in managing the content of the book, in order to selectively convert part of it into product propositions. In the fast paced sector of lighting design, the book could be an everyday reference.

7.1.11 DESIGN / REFLEXIVE
7.7.3 DESIGN / ROADMAP / HORIZON
7.19.1 DESIGN / NETWORKS / FORECAST VALIDITY

Generative Subcategory 7.8:

7.8 Generative Proposition (5):

The book helps the internal business unit audience to reflect and mature their positions, however this happens on the basis of intuition only.

7.1.12 REFLEXIVE

Generative Subcategory 7.9:

7.9 Generative Proposition (3):

The program offers a great *brand theme*, to be leveraged both inside and outside of the business unit and of the corporation.

7.3.1 BRAND THEME
7.6.1 BRAND THEME / INNOVATION LOOP / PR VISIBILITY

Generative Subcategory 7.10:

7.10 Generative Proposition (5):

The book is a source of imitation by competitors, who use it as catalogue reference to copy concepts and develop them themselves. This is seen as a proof of leadership and resilience of the approach, which remains unique to the point of being perceived as a potential sub-brand.

7.3.2 UNIQUENESS / ARCHITECTS' APPROACH
7.15.1 UNIQUENESS / CREATIVE LEADERSHIP

Generative Subcategory 7.11:

7.11 Generative Proposition (4):

During the interview phase and the workshop execution phase, the matrix structures analytical, semi-academic, outside-in knowledge that is critical to the program, while at the same time enabling tracking and monitoring the process.

7.4.1 MATRIX / ACADEMIC KNOWLEDGE
7.8.1 MATRIX

Generative Subcategory 7.12:

7.12 Generative Proposition (2):

The program does not aim at educating stakeholders. The aim is instead intended to show them possibilities in lighting design.

7.4.2 EDUCATIONAL

Generative Subcategory 7.13:

7.13 Generative Proposition (5):

Budget requirements for a program that includes the book, the interviews and logistic costs for a launch event are optimal, when considering the program-derived benefits.

7.5.1 BUDGET MANAGEMENT

Generative Subcategory 7.14:

7.14 Generative Proposition (4):

Strategic marketing and product management take the initiative to centrally create, (re)generate and steer the program, on the basis of existing assets when available, as their key owners.

7.5.2 MARKETING OWNERSHIP
7.5.3 MARKETING OWNERSHIP

7.5.4 MARKETING OWNERSHIP
7.5.5 MARKETING OWNERSHIP / INNOVATION LOOP

Generative Subcategory 7.15:

7.15 Generative Proposition (5):

The book and its foresight content have a validity of 5–10 years ahead in time from the moment of conception and publication. At the time of revising the program, the last edition of book with previous content is a reference and an asset.

7.7.1 FORECAST VALIDITY
7.7.2 FORECAST VALIDITY

Generative Subcategory 7.16:

7.16 Generative Proposition (4):

The program delivers concepts that represent visions of further future (Horizon 3), where contemporary technology is not sufficient for conversion into products.

7.7.6 HORIZON 3 / TECHNOLOGY
7.7.7 HORIZON 3 / CONCEPT

Generative Subcategory 7.17:

7.17 Generative Proposition (4):

The matrix provides a structure that can be revived over time by means of filtering new insights. The resulting visions can be valid for up to 10 years.

7.9.2 FALSIFIABLE FORECASTING

Generative Subcategory 7.18:

7.18 Generative Proposition (1):

The program can be initiated or steered without a clear vision of its final outcome at the moment of its conception.

7.10.1 GENERATING

Generative Subcategory 7.19:

7.19 Generative Proposition (5):

In order to integrate foresight conclusions based on expert interviews, urban scenarios and concepts, personal ownership by the research director/author is preferable. The book requires thematic saturation to be reached in its related cycle of workshops prior to its editorial creation.

7.9.1 INTEGRATING / GENIUS FORECASTING
7.10.2 INTEGRATING
7.10.3 INTEGRATING

Generative Subcategory 7.20:

7.20 Generative Proposition (4):

Existing technology and tools are not sufficient to convert workshop mock-ups into feasible products.

7.11.1 TECHNOLOGY

Generative Subcategory 7.21:

7.21 Generative Proposition (1):

The program has the ambition to demonstrate how lighting might trigger urban storylines. The program itself has a general storyline: “Better city for people”.

7.13.1 STORYLINE
7.13.2 STORYLINE / EDUCATIONAL

Generative Subcategory 7.22:

7.22 Generative Proposition (4):

The visual end-result of workshop concepts is determined and driven by mock-ups realized with existing technology.

7.14.1 MOCK UPS / PHYSICAL OBJECTS
7.14.2 MOCK UPS

Generative Subcategory 7.23:

7.23 Generative Proposition (5):

Sketches of future solutions are the result of co-creative dynamics, as being conceived and drawn by participating stakeholders.

7.17.1 CO-CREATION
7.17.2 CO-CREATION

Generative Subcategory 7.24:

7.24 Generative Proposition (2):

As lighting is a public issue, the program might include wider audiences and additional stakeholders, beyond professional communities of practice.

7.18.1 PARTICIPATION

Generative Subcategory 7.25:

7.25 Generative Proposition (4):

A relevant professional community for the program might include architects, landscape architects and interior designers, covering the expertise required in the "built environment" professional landscape.

7.18.2 COMMUNITY / DESIGNER

Generative Subcategory 7.26:

7.26 Generative Proposition (2):

The program is offered as a valuable tool.

7.19.2 BARTER

7.4) AXIAL CODING

In continuity and consistency, by means of the same procedural steps as in Chapter 6, it was possible to likewise reduce Open Codes into simplified and actionable "transitional objects", namely the Generative Propositions. Once again, also for Chapter 7, it is possible to track the origin of every single proposition, by reverting to the Appendix A, B and C of this PhD study. In a second wave of (axial) coding related to such propositions, once again focused on 2007 and 2014 books, it was possible to identify how they can be inter-connected (Creswell, 2013, p.195). Leading to the consolidation and further description of the Central Phenomenon, now deeper and deeper in their thematic narratives, according to what formulated below (as adapted from: Creswell, 203, p.274), in the form of four questions:

- causal conditions: what influenced this phenomenon to occur?
- strategies: what strategies were observed during the process?
- context: what influenced such strategies?
- consequences: what effect occurred?

Each of the four questions above will axially generate a corresponding "Theme", contributing to the understanding of the constructivist understanding of the Central Phenomenon. As anticipated in the above introduction to the empirical section and Chapter 6, it should be recalled how "codes" (as emerged from Open Coding) will differ from "Themes" (as emerged from Axial Coding, to be then organized in Storylines through Selective Coding. Consistently, also in Chapter 6, "Themes" will emerge from the Axial Coding in the form of extremely synthetic lines, summarizing the focus of the single axial. In terms of the next procedural step, "Themes" will act as "title headlines" of the Selective Coding textual materials.

7.4.1) Key Generative Category: Book

The "Key Generative Category" for Chapter 7 shifts from "Design" to "Book", where it is

possible to identify the extreme synthesis of the structuring communicative side of the Central Phenomenon. “Design” will emerge from the analysis as one of axial Themes, namely the “Strategies” one, reporting the same Theme as “Context” in Chapter 6. Generative Propositions will be once again semantically selected and clustered according to their sequential identifier, in order to keep the process objective. With the same approach as Chapter 6, the main discriminator in selecting a proposition as related to the Axial Code will be the presence of the keyword, namely “Book”, in this chapter, and any related elaboration.

Axial Coding: Causal Conditions

Theme: Efficiency and Effectiveness

Axial Code: Book

7.13 Generative Proposition (5):

Budget requirements for a program that includes the book, the interviews and logistic costs for a launch event are optimal, when considering the program-derived benefits.

Related Categories:

7.14 Generative Proposition (4):

Strategic marketing and product management take the initiative to centrally create, (re)generate and steer the program, on the basis of existing assets when available, as their key owners.

Axial Coding: Strategies

Theme: Design as intellectual partner in a multidisciplinary platform

Axial Code: Book

7.1 Generative Proposition (5):

The book is designed as a solid reference at a higher intellectual level, incorporating multi-faceted insights from thought leaders’ interviews (outside-in approach) with a critical mass of content generated in workshops. The book is distributed in limited quantities as a precise marketing strategy. The book is validated over time.

7.7 Generative Proposition (5):

Design provides support in managing the content of the book, in order to selectively convert part of it into product propositions. In the fast paced sector of lighting design, the book could be an everyday reference.

Related Categories:

7.3 Generative Proposition (4):

Sketches are produced in collective context with facilitation and are mission-critical to gain insights, both in the vision of individual designers as well as in future developments. Sketches represent the barter value for the corporate business unit.

7.4 Generative Proposition (3):

The program is designed with the confidence to generate at least two innovative product propositions as part of the corporate business unit roadmap. This is translated in a specific KPI.

7.12 Generative Proposition (2):

The program does not aim at educating stakeholders. The aim is instead intended to show them possibilities in lighting design.

Axial Coding: Context

Theme: Foresight Validity, Continuity in Time

Axial Code: Book

7.15 Generative Proposition (5):

The book and its foresight content have a validity of 5–10 years ahead in time from the moment of conception and publication. At the time of revising the program, the last edition of book with previous content is a reference and an asset.

Related Categories:

7.6 Generative Proposition (4):

The monitoring and reflexive constituencies are an important part of the program.

7.17 Generative Proposition (4):

The matrix provides a structure that can be revived over time by means of filtering new insights. The resulting visions can be valid for up to 10 years.

7.11 Generative Proposition (4):

During the interview phase and the workshop execution phase, the matrix structures analytical, semi-academic, outside-in knowledge that is critical to the program, while at the same time enabling tracking and monitoring the process.

7.16 Generative Proposition (4):

The program delivers concepts that represent visions of further future (Horizon 3), where contemporary technology is not sufficient for conversion into products.

7.18 Generative Proposition (1):

The program can be initiated or steered without a clear vision of its final outcome at the moment of its conception.

7.20 Generative Proposition (4):

Existing technology and tools are not sufficient to convert workshop mock-ups into feasible products.

7.21 Generative Proposition (1):

The program has the ambition to demonstrate how lighting might trigger urban storylines. The program itself has a general storyline: “Better city for people”.

7.22 Generative Proposition (4):

The visual end-result of workshop concepts is determined and driven by mock-ups realized with existing technology.

7.24 Generative Proposition (2):

As lighting is a public issue, the program might include wider audiences and additional stakeholders, beyond professional communities of practice.

7.25 Generative Proposition (4):

A relevant professional community for the program might include architects, landscape architects and interior designers, covering the expertise required in the “built environment” professional landscape.

7.26 Generative Proposition (2):

The program is offered as a valuable tool.

Axial Coding: Consequences

Theme: Internal and External Leadership

Axial Code: Book

7.5 Generative Proposition (5):

The book is distributed and received within the business unit as an opportunity to improve corporate profiling and customer relationships.

7.8 Generative Proposition (5):

The book helps the internal business unit audience to reflect and mature their positions, however this happens on the basis of intuition only.

7.10 Generative Proposition (5):

The book is a source of imitation by competitors, who use it as catalogue reference to copy concepts and develop them themselves. This is seen as a proof of leadership and resilience of the approach, which remains unique to the point of being perceived as a potential sub-brand.

Related Categories:

7.2 Generative Proposition (4):

The program delivers insights and trends, to be leveraged by segment marketing to generate future propositions.

7.9 Generative Proposition (3):

The program offers a great *brand theme*, to be leveraged both inside and outside of the business unit and of the corporation.

7.4.2) Axial Coding Final Deliverables: Themes

The Axial Coding for Chapter 7 ("Product") delivered the following Themes:

Causal Condition Theme: Efficiency and Effectiveness

Strategies Theme: Design as intellectual partner in a multidisciplinary platform

Context Theme: Foresight Validity, Continuity in Time

Consequences Theme: Internal and External Leadership

As in Chapter 6, Axial Themes will maintain a role in the Selective Coding process, namely as an editorial title to each Selective Code, as the latter will include all Generative Propositions. Such "themed title headlines" will enable semantic focus by synthesis, introducing each Selective Code with a clear direction for its narrative line development.

7.5) SELECTIVE CODING: STORYLINES

Selective Coding is the last procedure of analysis within Chapter 7. Axial "Themes" at this stage are limited to a cluster of diverse propositions. Selective Coding represents the passage from this condition of analytical collage to organic, sequential and meaningful textual units, with self-contained sense and actionable power towards theoretical development. Generative Propositions were again re-organized in terms of mutual clustering within each Theme, on abductive basis, with the only formal

requirement that the Key Generative Category would be maintained intact. It must be anticipated how, in relationship to the below Theme: *"Strategies Theme: Design as intellectual partner in a multidisciplinary platform"*, in Chapter 6 such a same axial Theme emerged as the "Context Theme". Therefore, the same verbal structure already appeared, however in a different position of the Axial Coding. From analytical viewpoint, this shift in position makes full sense, as in historical terms "Design" provided the contextual influence to define and steer the city.people.light equity and methods, whereas from the perspective of the communication structural moment, the book, "Design" is an approach functional to strategically achieve a concrete objective, the completion of the editorial process. Of course, the Theme itself acquires a powerful extension and additional articulation from this circulation within the analysis, a circumstance that will be taken in due account in Chapter 9, at the moment of theoretical activation. The additional text has, also here in Chapter 7, value of expansion and clarification of the Theme. Based on these operational principles, this is the result of Selective Coding for Chapter 7:

7.5.1) Causal Condition Theme: Efficiency and Effectiveness

Budget requirements for a program that includes the book, the interviews and logistic costs for a launch event are optimal, when considering the program-derived benefits.

Strategic marketing and product management take the initiative to centrally create, (re)generate and steer the program, on the basis of existing assets when available, as their key owners.

7.5.2) Strategies Theme: Design as intellectual partner in a multidisciplinary platform

Design provides support in managing the content of the book, in order to selectively convert part of it into product propositions. In the fast paced sector of lighting design, the book could be an everyday reference. The book is designed as a solid reference at a higher intellectual level, incorporating multi-faceted insights from thought leaders' interviews (outside-in approach) with a critical mass of content generated in workshops. The book is distributed in limited quantities as a precise marketing strategy. The book is validated over time.

The program does not aim at educating stakeholders. The aim is instead intended to show them possibilities in lighting design. The program is designed with the confidence to generate at least two innovative product propositions as part of the corporate business unit roadmap. This is translated in a specific KPI.

Sketches are produced in collective context with facilitation, and are mission-critical to gain insights both in the vision of individual designers as well as in future developments. Sketches represent the barter value for the corporate business unit.

7.5.3) Context Theme: Foresight Validity, Continuity in Time

The book and its foresight content have a validity of 5–10 years ahead in time from the moment of conception and publication. At the time of revising the

program, the last edition of book with previous content is a reference and an asset.

The program can be initiated or steered without a clear vision of its final outcome at the moment of its conception. A relevant professional community for the program might include architects, landscape architects and interior designers, covering the expertise required in the "built environment" professional landscape. As lighting is a public issue, the program might include wider audiences and additional stakeholders, beyond professional communities of practice.

The program has the ambition to demonstrate how lighting might trigger urban storylines. The program itself has a general storyline: "Better city for people". The visual end-result of workshop concepts is determined and driven by mock-ups realized with existing technology. The program delivers concepts that represent visions of further future (Horizon 3), where contemporary technology is not sufficient for conversion into products. Existing technology and tools are not sufficient to convert workshop mock-ups into feasible products.

The program is offered as a valuable tool. The monitoring and reflexive constituencies are an important part of the program. The matrix provides a structure that can be revived over time by means of filtering new insights. The resulting visions can be valid for up to 10 years. During the interview phase and the workshop execution phase, the matrix structures analytical, semi-academic, outside-in knowledge that is critical to the program, while at the same time enabling tracking and monitoring the process.

7.5.4) Consequences Theme: Internal and External Leadership

The book is distributed and received within the business unit as an opportunity to improve corporate profiling and customer relationships. The book helps internal business unit audience to reflect and mature their positions, however this happens on the basis of intuition only. The book is a source of imitation by competitors, who use it as catalogue reference to copy concepts and develop them themselves. This is seen as a proof of leadership and resilience of the approach, which remains unique to the point of being perceived as a potential sub-brand.

The program delivers insights and trends, to be leveraged by segment marketing to generate future propositions. The program offers a great brand theme, to be leveraged both inside and outside of the business unit and of the corporation.

CONCLUSIVE NOTE

The 2007 and 2014 city.people.light books were generated as design objects in the context of managerial standards, guidelines and practices that constructively influenced every aspect of their creation and production, from the choice of size and paper (coffee table book size with matt paper in 2007 to align the editorial product to architectural titles, post efficient size with glossy paper in 2014 to align format and look & feel to the Architectural Journal and its distribution network, at the lowest shipment cost), to the strategic selection of partners, contributors and suppliers. Editorial decisions and design directions were flexibly implemented with the specific objective to guarantee the

feasibility of publication within deadlines, for the purpose of launch in major events, eventually resorting to efficiency/ effectiveness measures aimed at guaranteeing such performance over time. Besides the internal processes of activation of city.people.light, to a wide extent based on its visual assets, the book was referenced as a highly inspirational foresight tool, although sometimes too abstract in its content. At pragmatic level, the city.people.light 2007 book was generally not activated by direct adoption in ancillary processes, or simply used in back-engineering mode to support and validate design developments within other projects. The 2007 book has been repeatedly and officially validated in several presentations during the 2014 promotion and profiling cycles as the first source of inspiration for two innovative propositions: FreeStreet (2011) and new generations of LumiMotion luminaires, confirming the successful conversion of concepts into product roadmaps and substantiating the achievement of the related ambitions set in 2006 at the moment of overall program design. In terms of coding analysis of primary interviews, the following axial Themes and Key Generative Category (book) selective codes were extracted from the analysis of Chapter 7:

Causal Condition Theme: Efficiency and Effectiveness

Budget requirements for a program that includes the book, the interviews and logistic costs for a launch event are optimal, when considering the program-derived benefits.

Strategies Theme: Design as intellectual partner in a multidisciplinary platform

Design provides support in managing the content of the book, in order to selectively convert part of it into product propositions. In the fast paced sector of lighting design, the book could be an everyday reference. The book is designed as a solid reference at a higher intellectual level, incorporating multi-faceted insights from thought leaders' interviews (outside-in approach) with a critical mass of content generated in workshops. The book is distributed in limited quantities as a precise marketing strategy. The book is validated over time.

Context Theme: Foresight Validity, Continuity in Time

The book and its foresight content have a validity of 5–10 years ahead in time from the moment of conception and publication. At the time of revising the program, the last edition of the book with previous content is a reference and an asset.

Consequences Theme: Internal and External Leadership

The book is distributed and received within the business unit as an opportunity to improve corporate profiling and customer relationships. The book helps internal business unit audiences to reflect and mature their positions, however this happens on the basis of intuition only. The book is a source of imitation by competitors, who use it as catalogue reference to copy concepts and develop them themselves. This is seen as a proof of leadership and resilience of the approach, which remains unique to the point of being perceived as a potential sub-brand.

An apparent contradiction must immediately be addressed; namely the reference to the limited distribution of copies crystallized in *the "Strategies Theme: Design as intellectual partner in a multidisciplinary platform".* This reference, extracted from a specific code, (7.12.2), was made in relationship with the limited amount of copies in 2007, to keep a

feeling of exclusiveness as already associated to the 1997 first book. The actual number of 2007 copies was not specified by PhD interview participants, however indicating way less than 10,000 copies and more than 100 copies, exclusively distributed by Philips as an internal publication. In 2014, a complete change of strategy took place. The official first run printed copies was 9,000, with a retail distribution reaching subscribers of the Architectural Journal (5,000 copies), qualified design retail worldwide, digital retail (www.amazon.com) and Philips. This differentiation, otherwise of capital nature, was simply not recorded in the interviews performed in 2013, as the distribution strategy for the 2014 book was still in the making, although contractual agreements with EMAP were already mature and in the making.

From a constructivist perspective, a degree of continuity was identified among thought leaders/expert interviews, workshop sketching and the actual work behind the book as a final product. In terms of Key Performance Indicators, design reviews or content related assessments were not discussed. The identified KPI's pertained networking functional to CRM, production deadlines and conversion of aggregated concepts into product innovation roadmaps. In this respect, the main focus was on functional knowledge, whereas the adoption of city.people.light knowledge insights as reflexive asset was described as intuitive and at personal level, left to individuals and their own informal processes. This might be based on an understanding that innovation processes are intrinsically distant from the everyday and its routines. While KPI's appear as referred to rationalized deadlines, "the" city.people.light book format expresses its uniqueness as a future oriented contribution within a more general *brand theme*, with key focus on the dynamic context of cities and educational purposes referred to functional knowledge, aimed at opening up new opportunities for target audiences (architects, urban planners, city managers) to discover the potential innovation of lighting techniques. The visual content of the book, namely the sketches, were the result of a highly contributive process where stakeholders played a co-creative role, to some extent, under the guidance and within the framework provided by the city.people.light methodology, down to the styling optimization by Philips visualizers. The issue of societal validation, although discussed in different interviews, was not addressed or leveraged in any of the workshops that generated the published materials and sketches. Throughout the different editions, the Urban Futures Matrix was identified as the element of continuity across the city.people.light process, to be re-invented with new analytical content (insights). It was already mentioned above how the book is perceived more as a source of functional knowledge than an actual reference in terms of reflexive knowledge. From the viewpoint of innovation horizons, one might speak of substantial continuity, because the book was seen as a relevant source for Horizon 1 (next generation innovation, in continuity) and Horizon 2 (future concepts within the same industry). At the level of paradigm-changing innovation (Horizon 3), sketches were selectively acknowledged as unexpected input to the strategic processes of Philips Lighting.

Based on personal insights of the researcher, who also acted as editor and author of the two books that are the research object of this PhD project, the two books went to a rather similar creative process, when compared:

a) both in 2007 and in 2013, the contribution by the editor/author, also in terms of general research direction, was considered as an element of "genius forecasting" although based on wider analysis, in juxtaposition and balance with the coherent adoption of the matrix;

b) both in 2007 (January) and in 2014 (Summer 2013), the editor/author received a limited quantity of images, in terms of sketches (2007) or sketches and digital photographs, representing the concepts as workshop output;

c) both in 2007 (January) and in 2014 (Summer 2013), the editor/author worked on the basis of precise contractual agreements and project specifications with Philips Lighting (Fernand Pereira and Maximilian Venzke, then acknowledged as co-authors, in 2007; and Nils Hansen, in 2013);

d) both in 2007 (January) and in 2014 (Summer 2013), the editor/author worked in relative isolation on the main body of the book text, leveraging earlier reports, thought leader (2007) or expert (2013) interview transcripts, desk research bibliographic sources;

e) both in 2007 (later Winter) and in 2014 (Autumn 2013), the editor had no influence on art direction, graphic design, pricing or any other choice related to the aesthetic presentation of the book. With choices being determined by Philips Lighting on the basis of a mix of considerations (corporate identity in 2007, distribution costs in 2013, tactile and visual impressions on the audience);

f) the editor received 20 author copies in 2007 and 35+15 author copies in 2014, for his own distribution.

The two editorial processes were diversified on the following points:

a) in 2007, the lighting technical information were limited to few occasional input elements and a general “sanity check” provided by the co-authors (Pereira, Venzke), to prevent any imprecision;

b) in 2013, lighting design specifications were systematically provided by the independent co-author Tapio Rosenius, Founder, Lighting Design Collective, Madrid, with reference to the precise 23 mock up’s assembled for each single concept, therefore the 2014 book is technically richer in terms of technical / functional knowledge;

c) in 2007 the book was positioned as a new global study without direct references to the earlier edition in text or visuals. Whereas in 2014 the book was presented as a European study, with several textual and visual references to the 2007 book, of which it might be conceptually interpreted as an intermediate refreshment after less than 10 years.

Writing a book implies editorial and design choices at all levels, explicitly framing the city.people.light platform in terms of its final output. In this process of framing, envisioning and visualizing, “Design Thinking” was identified as a central regulating principle. As anticipated, this appears rather surprising, considering the progressive migration of the operational responsibilities, first, and of the intellectual presence of Philips Design from the program. In this respect, as already mentioned above, one might only conclude that the execution of design processes and the exercise of “Design Thinking did not require, in the passage from 1997 to 2011, the presence of Philips Design” specialists, as the presence of a world famed lighting designer (Tapio Rosenius) and of the PhD researcher was sufficient to perform.

SECTION III
EMPIRICAL ANALYSIS

CHAPTER 8
CODING: THE CREATION PROCESS (PRACTICE-FOCUSED MOMENT) OF CITY.PEOPLE.LIGHT

NAVIGATOR

- to be expected in chapter 8:
  process 2006–2011-2013 (practice-based moments of city.people.light: workshops): Open Coding; Generative Categories and Propositions; Axial Coding (key axial category: "Process / Workshop"); Selective Coding.

- references from earlier chapters that enable understanding of the chapter:
  Chapter 4 (High Design, city.people.light, urban futures matrix), Chapter 5 (epistemology and methodology for empirical primary research), Chapter 6 (Selective Coding); Introduction to Section III.

- position / role of the chapter in the PhD study overall sequence:
  empirical / analytical, with focus on primary data processing.

- why the chapter is relevant:
  providing key empirical findings from primary research.

- to be expected after this chapter:
  Section III Cross-Axial Confrontation (cross-referencing of empirical findings).

CODING EDITORIAL SEQUENCE

Empirical Data: 13 Expert Interviews (Purposive Sampling) based on Item list

Section III, Chapters 6, 7, 8, plus Cross-Axial Confrontation
Three Coding Streams: 1) History / Context, 2) Product, 3) Process

First Step: Prefigured Coding (History / Context, Product, Process)
(based on Item List, in order to fragment transcripts)
Outcome: ***Prefigured Codes***, Appendix A

Second Step: Open Coding (History / Context, Product, Process)
(based on Prefigured Coding content, prioritized to generate Open Codes)
Outcome: ***Open Codes***, Chapters 6, 7, 8 and Appendix B

Third Step: Open Coding (History / Context, Product, Process)
(based on Open Codes, clustered to form *Generative Subcategories*)
Outcome: ***Generative Propositions***, Chapters 6, 7, 8, and Appendix C

Fourth Step: Axial Coding (History / Context, Product, Process)
a) Based on Generative Propositions.
b) Analyzed by mean of three Key Axial Categories; Design, Book, Workshop.
c) With constituencies; Causal Conditions, Strategies, Context, Consequences.
Outcome: ***Themes***, Chapters 6, 7, 8

Fifth Step: Selective Coding (History / Context, Product, Process)
(based on Generative Propositions, aggregated).
Outcome: ***Storylines***, Chapters 6, 7, 8

INTRODUCTION

Within a third empirical step in terms of primary research, Chapter 8, the focus will shift to the second "research object" and its analysis, while mirroring again the methodological steps enacted in Chapter 6 and Chapter 7. In the mixed method approach defined for this PhD, the coding within this chapter will once again have as a backbone topics; the "what" in terms of process (the city.people.light execution core) and "how" in terms of the management of such process. Keeping the specific focus on the workshop as a practice-focused moment in the program, once again with the historical and contextual Themes as defined in Chapter 6 maintaining their validity as background foundation:

"Causal Conditions Theme:
Design Leadership, Marketing Focus

Design takes the lead in creating insights by processing expert interviews, and then presenting such insights visually, in order to challenge the current status quo of High Tech".

"Strategies Theme:
Design as B-to-B knowledge manager and network switcher

Design generates a program with hybrid elements from R&D (research) and strategic marketing, progressively opening it up in its second edition to external stakeholders. Design creates a thought leadership foresight framework to successfully study, anticipate and leverage a deep understanding of urban change, involving both senior and younger architects within major architectural firms, in order to envision innovation solutions that will happen over time. Student involvement is not part of the approach. The program is designed for business-to-business purposes, therefore it does not include any citizen, student or open participation. Although such participation might be desirable, interactions with business stakeholders represent the core value of the program".

"Context Theme:
Design as intellectual partner in a multidisciplinary platform

The program is based on High Design principles. High Design elevates "design" to a higher master planning role than product design, integrating technology, sociology and other knowledge, in order to generate insights and experience flows. Spin offs based on the methodology are designed and executed, according to diverse interpretations of the program blueprint. The value of "design" within the program lies in its intellectual capital (e.g., relating to thought leading interviewees, steering the process beyond immediate applications, consistently integrating workflows within existing tools to achieve continuity with the past)".

"Consequences Theme:
Design as visual connector, creating an architect-focused *brand theme*

Design enables an experience of "virtual co-creation" by means of a process that connects insights generated beforehand from expert interviews, to inspiring multimedia visualizations".

As the above is the historical and contextual synthesis of the "Design" Theme within city.people.light, it is possible to derive a few observations on the workshop process, directly from the Themes and their articulation:

1) at causal level, the workshop is not mentioned or featured, which appears logical, since the workshop is a tool in achieving the objectives, more than a causal instance in itself. One might infer the need of the city.people.light process to converge from expert interviews to the visualization output, whereas the workshop process might take a role in generating and communicating insights;

2) at the level of "strategies", the conclusions from Chapter 6 highlight a number of relevant historical and contextual points related to the workshop: a) firstly, the progressive opening from internal actors to external stakeholders, which is the fundament of a real collaborative modality; b) secondly, the discriminating parameters in terms of access, determining the inclusion of younger architects in professional firms while students are normally excluded; c) thirdly, the total exclusion of non-professional stakeholders, e.g. citizens. The strategy of deploying the workshop as a switching trigger for networking purposes is therefore herewith historically verified, validated and specified in its details;

3) from the viewpoint of influencing factors, it firstly clearly appears how the intellectual leadership is a key constituency of city.people.light. The program is described as integrative and scalable, hence these qualities might be reflected in the workshop format and practice as well;

4) at level of city.people.light effects, closing the circle, a mirroring statement compared to its causal conditions reflects the need to integrate expert opinions within a process leading to visual output. As well as the above reflection at 1) here above, it is possible to identify also in this Theme a relevant reference for the workshop format.

It was already presented in Chapter 6 how workshop outcome might exceed the specific perimeter of "Design", however being the beneficial effect of techniques and competences developed through the decades, since the 1960's, within a multidisciplinary design practice at Philips. What can be abducted from related empirical data is the key role played by workshops within city.people.light. As elaborated in Chapter 4, the city.people.light platform and approach offer the possibly rare opportunity to integrate social sciences with actionable design, in an aspired blend of co-creation. To rationalize such a hybrid mix, a working hypothesis within this PhD study has been that "design workshops" might be the venue to take full stock of qualitative interviewing findings, in the form of presentations. Workshops might therefore be seen as the organizational crossroads where inbound and outbound stimuli are combined to understand how cities will (preferably) change in the future *(Skype communication with Dr. Bishop, early 2014)*. As much as workshops might appear as simple "operational

tools" for city.people.light programs to take place in the larger context of High Design, they represent the format where multidisciplinary, multicultural flows get structured. Consequently, one must observe the specific format choice to keep a "workshop" central to city.people.light, although with variations and declinations from edition to edition. It almost might appear as, in format terms, the workshop is a necessary constituency beyond within city.people.light.

How have workshops been valorized and communicated by Philips as a city.people.light asset? Here it is the books themselves, as analyzed in the earlier Chapter 7, that offer a testimony, equivalent to the above analyzed 2014 press release related to *"Create the Livable City"*. In terms of self-representation within the *brand theme,* workshops are extensively presented in the 2014 book *"Create the Livable City"*, where there is a first reference to the "Wild Cat" multidisciplinary, innovation teams of Philips during the 1960's (Bevolo, Rosenius, 2014, 6). Hence, referring back to a teamwork-intensive creative process as a potential first reference to describe city.people.light. The main reference to workshops is introduced at page 7, when the methodology has been fully outlined, considering the workshop format as implicit: *"…workshop management has been deployed in consistent fashion, building on the city.people.light legacy by adding, integrating and implementing specific urban outdoor competencies… The end result has been concrete prototyping assets. The prototypes were assembled by the workshop participants themselves, confirming that they are true protagonists…"* (Bevolo, Rosenius, 2014, 7). Specific 2011-2013 workshops are presented in a dedicated section of four full pages, acting as introduction to the creative concepts and as editorial junction between the theoretical and methodological chapters, and the actual urban futures visualizations. This is not an accidental choice, as historically the city.people.light books were divided between the textual analysis and the visual sketching chapters. Two pages, 38 and 39, are mostly focused on the venues, the cities (Bratislava, Copenhagen, Turnhout, Dubrovnik, Wroclaw, Glasgow). Visual representations highlight either the physical appearance of venues or the communal moments of teamwork or immersion in the lectures that would introduce teamwork sessions. While page 41 is then entirely focused on concise introductions of the workshop outcome, hence, once again not presenting the actual format or process. It is page 40 that provides the reader with an articulated examination of the workshop management context and principles, particularly making explicit the following points (adapted from: Bevolo, Rosenius, 2014, 40):

1) all workshops included the same or an equivalent program, where a debriefing from thought leading expert interviews was provided, with a strong theoretical component unified by the adoption of the urban futures matrix;

2) participants engaged in teamwork with professional facilitation;

3) design teams engaged in blue sky thinking and visualizations, in a multiple way of creative work, with peer feedback and with the final outcome being represented by sketches and mock ups;

4) the 2011–2013 format was based on an updated and upgraded 2007 format blueprint;

5) the content focus of these 2011–2013 workshop was to deliver European scale urban futures.

It should be specified that point 1) could be truthfully articulated because the Wroclaw workshop did include direct participation by the PhD researcher, in his "insider" role, with the specific task to present and make actionable the urban futures matrix, in the constant effort of Philips Lighting Poland SA to keep the standards of their national program to EMEA standards. Additionally, it should be noticed how the workshop format was given less quantity of pages in this 2014 book, when compared with the socio-cultural drivers and the urban futures matrix, that accounted 24 pages (Bevolo, Rosenius, 2014, 11-35). In the 2007 book, the dynamics and details of workshops were not even mentioned, beyond the simple accurate reproduction of the names of all participants, so, in terms of self-representation, the workshop format and process might appear either neglected or secondary with respect to the urban futures matrix, concepts and sketches.

The potential impression that the workshop format was not embraced as a strong feature of the city.people.light approach might be then reinforced by the examination of another extant document, the article *"Learning from Glas Vegas. An AJ urban design charrette and Philips Lighting Livable Cities workshop, Glasgow 2013"*, published by Architectural Journal on 13/12/2013. This feature was part of a larger cooperation and sponsoring project where AJ and Philips Lighting pursued the execution of a mixed event, with two separate workshop sessions, one managed by AJ directly (identified as "charrete"), one being the 2013 Glasgow workshop of the *"Create the Livable City"* series. In the introduction to the 35 pages feature, Jaap van der Linden, Senior Manager Business Segment Marketing, Urban Inspiration, Philips Lighting, provides an explanation of the larger picture of *"Create the Livable City"* (VV.AA., AJ, 13.12.2013, 32), while Rory Olcanto, AJ Editor, in his separate intro (VV.AA., AJ, 13.12.2013, 33) provides a descriptive recap of the workshop process, from the viewpoint of journalistic reporting: *"The event began on a Monday night in the Central Hotel, where the participants met for dinner. Later that evening we walked the site the architects were asked to transform. On the Tuesday morning we held seminars in Glasgow City Halls, which informed both the Philips-led lighting workshop and the AJ charrette taking place that afternoon in the neighbouring Fruitmarket. We ended the day with crits – and a meal altogether in the Merchant City. The next morning we met in the Lighthouse, Glasgow's centre for design and architecture, to reflect on the previous day's work and listen to Peter McCaughey – our on-hand artist and charrette facilitator – discuss alternative approaches to how we can make the places we live even better than they already are"* (VV.AA., AJ, 13.12.2013, 33). This reconstruction is accurate in substance, describing the workshop more as a social event with a number of casual steps. In a different section of the editorial feature, Olcanto specified the source of inspiration for this event: *"In part, it was a weekend-long lighting festival in November 2005, Radiance, produced by Simon Smith, an old friend from Strathclyde University architecture department, who at the time was leading Glasgow City Council's lighting strategy. As Simon himself has said, Radiance, and its 30 or so commissioned lighting installations set in around the Merchant City, 'made the air fizzle and the dust glow'. But it also changed how we experience the winter gloom of the city so powerfully, so positively, it seemed this was how Glasgow should be all the time. 'Learning from Glas Vegas' is the AJ's attempt at making that dream come true".* (VV.AA., AJ, 13.12.2013, 41). Once again, while Van der Linden described city.people.light in its general elements and purposes, the roots of the activity are herewith presented as lying in rather informal, almost casual and personal circumstances. The visual narrative modality of the 35 pages is somewhat equivalent to the 2014 *"Create the Livable City"* book, where Olcanto played the role of "AJ Acting Editor", EMAP being the publisher of both AJ and that specific city.people.light book. For what pertains this PhD study, it can be concluded that neither at the level of an important

sponsored feature on a flagship publication, nor at the level of the city.people.light books, the workshop format and its process management have been communicated as fully valorized in any strategic function. The backbone of the workshop process and of its fundamental constituencies were duly recognized and generically described, however it not communicated as a main feature of the topic at hand, remaining somehow in the background as implicit features.

As in Chapter 7, having established an introductory foundation based on secondary sources, it appears appropriate to shift the analysis from extant documents to primary interviews, with the aim to verify the above preliminary impressions through the eyes of expert opinions as systematically collected for coding. Within the Central Phenomenon, the workshop represents the core of the (creative) process within city.people.light. Hence, responding to the challenge to investigate and analyze the last constituency of the "Central Phenomenon", namely, as anticipated in the introduction to this empirical section:

- creation process *of (urban futures) scenarios and concepts, with key category focusing on the "workshop" as process designed to enable professional stakeholders and members of relevant communities of practice to generate city.people.light findings;*

By "workshop" it is herewith specifically identified the stakeholder-focused, co-creatively aimed, facilitated event (format and execution) as in the city.people.light programs performed in 2006 (globally) and 2011–2013 (Europe), covering the specific workshop management strategic approach and tactical practices, based on the overall managerial decision-making overview introduced and specified in Chapter 5.

Chapter 8 will rely on the following assets:

- 13 interviews with qualified respondents performed in Nov/Dec 2013
- extant documents, as already introduced in Chapter 5 with a case study review of the executive decision-making process (2010–2011), as one reference example of concrete managerial practices determining the workshop design and execution
- photographic records of 6 published workshops, equivalent in aesthetic appeal and art direction across the five European workshops and the additional Polish workshop, in spite of execution by a different photographer;
- video recordings of city.people.light class events held in 2011–2013 (Bratislava, Turnhout, Dubrovnik, Copenhagen, Glasgow) including but not limited to direct registration of workshop dynamics
- professional memo's supporting the contribution by the PhD researcher to 2011–2013 workshops, in his capacity of consulting research principal commissioned by Philips Lighting BV;
- personal memories (memoire) and anecdotal evidence from city.people.light 2006 and 2011–2013 workshops, including e-mail transmissions and other company confidential documentation, that will not be quoted or referred to in this PhD, yet it constitutes the relevant backbone of the PhD researcher awareness and understanding of the process
- presentations, trade articles and other collateral assets describing the process and its structural or practice-focused constituencies for promotional or other official purposes.

As an example of the last point, it is possible to mention the AJ 2013 feature as introduced before. Just as in Chapter 6 and especially in Chapter 7, the key focus will be on interviews and coding of transcript materials of textual nature, representing face-to-face conversations with interviewed experts.

Chapter 8 will be framed in the following editorial execution by a number of features, operations and procedures:

- insights on the 2006 and 2011 – 2013 workshops
- coding from interviews (primus inter pares) specific for Chapter 8
- analysis of the Open Coding preliminary insights
- Axial Coding, based on processing Generative Propositions
- Selective Coding, as final wrap up.

In 2006, city.people.light events were planned as four workshops labeled as "city.people.light global program", whereas in the original editorial blueprint (and contractual agreements) related to 2011-2013 five workshops were labeled as *"Create the Livable City"* performed at EMEA (European) level, under the design direction of Tapio Rosenius, a charismatic designer, founder of Lighting Design Collective, Madrid. In 2013, it was a discretional choice of the PhD researcher in his consulting principal capacity and as an author to include the Wroclaw workshop, held in Spring 2013 as part of the Polish national "Architects of Light" program, under the leadership of Arch. Michal Kaczmarzyk, Nysa, PL (workshop leader on all "Architects of Light" events in Poland), instead of Tapio Rosenius. During *"Create the Livable City"* EMEA workshops, technical lighting design realization of mock ups was enabled by the factual contribution of Philips Lighting LIAS European-level application specialists and innovation process specifications were discussed and interpreted by Tapio Rosenius on the basis of his own leadership and authority, with only the exception of Wroclaw, where Philips Lighting Poland SA provided an equivalent technical support, however based on local country resources. The different series of workshops, events and processes under examination were equivalent, similar or identical tout court for at least the following points:

a) all workshops were generically structured according to an event planning framework. This included a theoretical part for passive absorption by participants and a subsequent applicative moment where participants would be divided into teams, with the purpose to generate ideas about lighting design solutions for the future;

b) all workshops were organized by Philips Lighting in terms of invitation process, invitation selection and relationship management, while being facilitated by a team of non-Philips Lighting specialists, either Philips Design as service unit (2006) or external consultants (2011 – 2013);

c) all workshops were conceptually framed within the formal presentation of the urban futures matrix, that was introduced as a socio-cultural trends format and leveraged to channel such content, while being at a later stage of the event used as a creative direction tool, to provide feedback and structure to the ideation process;

d) all workshops were held in English language as main linguistic modality for all communication and facilitation purposes;

e) all workshops were physically held in venues that had no direct or indirect connection with Philips whatsoever.

At the same time, the following points of diversification characterized the workshop sessions. Hence, constituting an element of differentiation across the temporal line from 2006 to 2013 within the actual practical executing of the format:

a) all 2006 workshops were based on a one day format, with a "trend presentation" and the afternoon focused on the production of sketches in high quantity, while all 2011-2013 workshops were organized as a 1.5 day experience. With an in depth theoretical session in the first morning, the development of one concept per each team in the afternoon, the realization of mock ups in the evening and a wrap with a keynote the day after;

b) in 2006 only Philips speakers were admitted as presenters, whereas in 2011–2013 external speakers were invited to present insights about the venue of the workshop, general municipal information or their own practice and vision. Additionally, at the Bratislava, Turnhout, Copenhagen workshops there was an international discussion panel, including Tapio Rosenius, Jasmine van der Pol (Philips Lighting LIAS), and a selection of both workshop participants and external guests, designed with the purpose of connecting European trends as presented in the matrix with the local situation of involved countries;

c) in 2006, the trend matrix was presented as an "empty tool" of reference, whereas in 2011–2013 the urban futures matrix was presented in its specifications and scenarios as a key feature of the methodology, therefore rising in its function within the process;

d) the "global" workshop held in Shanghai (2006) required an improvised translator from Chinese into English, in the person of a Sino-American Philips Lighting LIAS designer who was originally involved as an illustrator. At the moment of starting the session, it was announced that, contrary to event design specifications, a relevant number of Chinese guests were not in a linguistic condition to operate through the day in English language, therefore a solution was improvised on the spot;

e) all workshops were physically held in interior venues, where in 2006 the process was limited to sketching while in 2011–2013 the process was extended to simulating prototyping by means of mock ups in simulated urban spatial areas. With the only exceptions of Dubrovnik (where the workshop was held in the courtyard of the Rector's Palace, therefore an open space with a partial roof system) and Wroclaw (where the workshop was held *en plein air* in Piludski Square, in an underprivileged area of the city;

f) additional elements that differentiated the Wroclaw workshop were both in line with the general "Architects of Light" format (e.g., one day duration with start at 12:00 and end at 00:00) as well as specific for this particular session (e.g., involvement of Polish design students within the creative teams, involvement of citizens with direct feedback provided the day after and access to the mock up installations, adoption of fully fledged urban matrix for trend input and creative

direction purposes);

g) sales people were not admitted in 2006, whereas they were selectively admitted in 2011–2013 in a "silent role" for support only, not being enabled or even permitted to perform any direct sales pitch or promotional action;

h) interviewed experts and thought leaders were never involved in the actual workshop sessions, keeping a formal line of division between the qualitative interviewing moment and the creative stage of the program, with one exception. In 2006, at the Philadelphia workshop covering NAFTA countries (US, Canada, Mexico), Philadelphia-resident Robert Venturi and Denise Scott Brown, authors of fundamental theoretical work in the 1960's and 1970's, and pioneers of postmodern architecture, expressed the desire to join the workshop after being interviewed as thought leaders during their European holidays, four months earlier. Additionally, Peter Gero, the City Architect of Bratislava who spent most of his professional life in Hamburg, was invited in 2011 as an opinion leader to join the Bratislava panel session, while being subsequently interviewed as a formal expert in Summer 2013, in Hamburg.

It should be reiterated that all above events, within or outside specific formats, were presented as an open platform for co-creation, directly or indirectly identified with the Philips brand at multiple points of visibility, in memorable and distinctive ways. At the same time, one of the questions that might naturally emerge at a deeper level of investigation is, what / who is exactly the "Philips" referred to in this creative process? As a brand, Philips is described as a monadic or monolithic entity by analysts, markets and operators, within what Castells defined "*the automaton*". However, because of its nature of collective "persona", Philips is as varied as the personalities of its own senior leaders, middle managers and stakeholders and staff. In particular, it was already recorded how city.people.light is a program involving Philips Design and Philips Lighting. This dichotomy will be the object of a number of reflections, from the financial investment "hard perspective" to the softer constituency of the "*savoir faire"* related to creative direction and relationship management. Chapter 5 provided an overview based on extant documents and precise references to the "bigger picture" where city.people.light programs took shape, with the precise reference to the 2010 – 2011 executive decision-making that enabled the existence of *"Create the Livable City"*, reviewed and presented according to the Case Study approach within the mixed method of this PhD.

8.1) OPEN CODING: WORKSHOPS AS PRACTICE-FOCUSED MOMENT OF CITY.PEOPLE.LIGHT

As articulated in Chapters 6 and 7, the primary dialogs with experts were analyzed in their transcripted version, with their preliminary codes were identified in the same theoretically derivative grid, rooted in the theory from Chapters 1 through 4, and the interview item list, with subsequent coding focused on the essence of the "Central Phenomenon" (Creswell, 2013, 196):

"The Central Phenomenon is identified as the research-based process of creation and subsequent communication (through editorial products) of scenarios and concepts in postmodern times (with the initial claim that city.people.light is an application of the High Design approach, the latter being a specific proprietary people-focused, future oriented,

design management process by Philips)".

The two guiding questions for the Open Coding, therefore, just as for chapters 6 and 7 above, could be formulated in the following adaptation of Creswell's generic indication:

1.1 What was the city.people.light workshop process in 2006 and 2011 - 2013?
1.2 How did the workshop process unfold?

Once again, in equivalent fashion as in the two empirical chapters above, coding procedures performed on the data will be introduced by a short description of the actual preliminary findings as based on open codes. There, attributed and identified fragments of actual codes or codes in their entirety will be selectively plugged into the text flow, in order to render the viewpoints and opinions expressed by experts as they were received, while providing an overview of findings. Also in the case of this chapter, Open Codes extracted by means of Prefigured Coding are reported in Appendix A in their status of transitional textual materials. Then, the shift to reconstructing how multiple viewpoints define workshop related process features in terms of interpretation will lead to the Generative Subcategories, included in Appendix B, and Generative Propositions, specified in Appendix C, to end with an Axial Coding exercise, leveraging again Generative Propositions through the Key Axial Category this time identified in the "Workshop", after "Design" from historical and contextual viewpoint, in Chapter 6 and "Book" as "first half" of the Central Phenomenon in Chapter 7. The same procedures as described in the introduction to this empirical section and adopted in the above Chapters 6 and 7 will be performed. Therefore, all technical details thereof, as already provided, will not be reiterated in this Chapter 8.

Differently than Chapter 7, Chapter 8 could not be grounded in a "critical realist" mixed approach, although it remains within the *"bricolage method"* as adopted for the entire PhD study. This is because Chapter 7 describes "structural moments" of city.people.light, namely editorial products that were conceived, designed and printed in order to remain in time and space as semiotic sources of meaning over time. Of course, interpretation and meaning thereof will change in time, however it is incontrovertible how the two books "exist" as objects in space and time (hence open to interpretation at any location or given moment they are experienced). On the other hand, "processes" do not exist as such, only in terms of their documentation and recall. Unlike such city.people.light books, in this case a "posit", as introduced in Chapter 5, was needed to provide a documented yet summative reconstruction of the general managerial and decision-making process behind city.people.light, by leveraging extant documents, to "stand for" the actual research object. Even more so a workshop process, and its related management approach, as described in documents or memos, can never be elevated to the "absolute presence" of physical nature that a book might have. Per its specific nature, a workshop is a fluid event happening at a given time, in a specific case, on the basis of unique and non-repeatable dynamics and circumstances. In an event, a number of unrecorded events of, sometimes, informal and uncontrollable nature constitute an important backdrop of contextual conditions for any managerial or workshop process. Therefore also city.people.light programs to maintain their equity. Here, one might identify both a) personal relationships and b) everyday practices that went largely unrecorded in the actual PhD interviews. From informal business lunches to negotiation tactics in the definition of single contracts, from professional histories to plain personal empathy, activities and practices in the everyday are key for the functioning of collective, relational processes like workshops. Reflexively, just as an outstanding example, the

PhD researcher might recall how during one of the European workshops he received a family phone call presenting an extreme situation of medical urgency, which changed completely not only his perception but most likely his performance for the rest of the event that he concluded in a feverish state of shock. These circumstances, plus the natural differences that are intrinsic with any different experience in time and space, should be multiplied by the number of participants, and then still be amplified by the interaction thereof, that is also always constructivist-wise unique. Due to their nature, events like workshops exist as unique fluid moments in time, leaving behind documentation that might enable, always partially, the reconstruction of *"the real"* where such processes were grounded. Once again, one might follow Carmelo Bene in his image of the recorded document, or the written word, to be nothing more than the *"dead oral"*, or the corpse of the actual living organism that was the experience at a given moment, in a precise place, be it a theater stage or a workshop location. This line of analysis will be the object of the further self-reflection chapter 10 of this PhD thesis. Hence, this point was provided as an anticipation to state that the above axial coded elements will not provide the overall picture of contextual influences active on city.people.light through the two decades of its existence. One might also anticipate, that because of the above considerations, primary data coding will play an even stronger role in this chapter than it did in Chapter 7.

8.1.1) Open Coding: Early Findings Overview

After preliminary clarification of the specific peculiarity of this chapter through "insider" recall and reflexivity, it appears appropriate to once again contextualize this chapter within the Grounded Theory approach. Here viewpoints, opinions and insights as recorded in the interviews and filtered by Prefigured Coding procedures as presented in the introduction to these empirical chapters will generate a number of answers and findings. The city.people.light "workshop" process as practice-based moment of creation is described by a number of items and qualities, including the overview as follows:

a) thought leadership-focused events with multipurpose nature (CRM, innovation);
b) events where insights are generated in order to populate product roadmaps;
c) events conceived and governed by means of a "Design Thinking" mindset;
d) lighting design focused session;
e) events inspired and managed by means of the urban futures matrix;
f) events integrated in a city.people.light *brand theme;*
g) educational value events, perhaps beyond the internal perception at Philips;
h) sketches maintain a central role in the conversion from theory to concepts;
i) offering the opportunity to perform wild cards and bluesky concepting;
l) not based on technology, however depending on existing technology for mock ups.

As already highlighted in Chapter 6, "Design" appears to be relatively low in priority and urgency within this short list, however it might be an implicit "mindset", as indicated in point 3) above, while the workshop might be perceived as an implicit feature of "Design" practices at Philips, due to historical grounds. Shifting to a networking viewpoint it is also possible to draw a number of preliminary indications that connect back to the theoretical framework derived from Castells:

a) events offer a mutual switching platform to Philips and participants;
b) circles and communities of practices might use the events as touchpoint;
c) no city.people.light specific community is triggered by events or exists over time;

d) events are not open to citizen or non-professional stakeholder participation;
e) the format is based on clear barter where both Philips and participants have clear benefits.

The Key Performance Indicators, or equivalent, connected to the workshop process were identified as follows:

a) measurement of performance mainly assessed by NPS (since 2011);
b) conversion of workshop outcome into solutions roadmaps (two to three ranges);
c) generically expected 1% to 5% conversion rate from sketches to product ranges;
d) CRM conversion expected in terms of future commercial opportunities;
e) financial and commercial value questioned and challenged by internal stakeholders.

A sales target was never specified in the program design or in the workshop objectives. Although it was reiterated multiple times that direct sales during city.people.light events were never allowed, it must be consolidated how city.people.light implies the imperative to increase commercial performance. However, city.people.light workshop processes might be seen as a platform where the conditions to access new and relevant prospect customers, with a higher level of prestige (and therefore a potentially perceived premium) were systematically created. A point of proof can be identified in the workshop participant selection: [8.16.3 MARKETING / SWITCHER / WORKSHOP *"But then we gave some quotas per country, because of course you cannot invite the whole planet, so there was a limitation – even just the venue, would not accommodate – […] That was Rotterdam, indeed.* [NOTE: in 2007, book launch event] *[…] So, the workshops then – we selected, so we wanted to have it global, so we selected a couple of cities around the world, that, you know, where we could have a kind of regional view point, then the invitation was – so, we defined it – so, I defined what kind of customers should be invited. […] Or prospects, exactly. Not – ja, customers is the wrong word – in that case, the key stakeholders, let's put it like this. […] And then – Ja, but then I, of course I don't have the contact in whole parts of the market who are the best to represent. So then we – I discussed it at that time with the marketing / sales management of that country. Saying: Ok, please send me some potential key stakeholders. And then based on, you know, we received some names and then we had to make the selection, but then it was more based on having profiles that add to each other. So like if there would be ten great lighting designers, then we would not like ten".* – Fernand Pereira *(on 2006).* As anticipated, it was a clearly established perception among PhD contributing interviewees that Philips Lighting is in full control of the invitation and selection of stakeholders to be involved in city.people.light events. The successful outcome of city.people.light workshops has its first foundation in such a selection, as based on country choices / quotas, depending on the ability of local marketers to reach the best stakeholders who are committed to actively contribute, since this format does not pertain a standard customer event devoted to entertainment purposes: [8.17.1 CRM / CONTRIBUTION / WORKSHOP *"So, the first one was more kind of hierarchical, and formal and pure in a way. […] Maybe that is why it needed sort of two years before it actioned, because the business was not on board. […] And the second one, then you knew immediately, because there were customers – so it also served even another purpose, it was sort of engaging with customers on the project. […] I don't know if that is always – maybe then you have too many purposes of the multi-purpose-strategy then - they have the innovation, and the subsequent PR, and then the kind of entertainment of customers during the workshop as well, it's maybe it is too many - too much".* – Laura Taylor *(on*

1996, 2006 workshop format evolution versus professional audiences)]. Parameters to determine an invitation might include the visibility created by a (recent and / or major) new policy released (for city management) or by current or future projects (for architects and other creative specifiers).

In terms of performance assessment and measurement, NPS was indicated as the main reference, rather unsurprisingly considering the central role that this methodology plays within the Philips corporation since the end of the 2000's: [8.2.4 NPS / KPI / NETWORKS *"For us, the program of 'Create the Liveable Cities' was actually meant to be a relationship building tool. So, we set KPI's according to a number of invitees, we set KPI's according to, ja, let's say – I would not call it "lead generation", but relationship performance, and thirdly we measured every event with an NPS, Net Promoter Score to make sure we did the right things and that actually the people liked what we did…". –* Nils Hansen *(on 2011 – 2013)*]. At the same time, this specific corporate performance measurement tool was not available in 2006. It instead became the sole immediate performance reference for all workshops starting 2011: [8.2.6 NPS *"At that moment we did not work actually with that way of evaluating the – the Net Promoter Score… –" –* Jasmine van der Pol *(on 2006)*]. From this viewpoint the feedback by stakeholders participating in each workshop was the starting point to optimize, calibrate and eventually adapt presentations, scripts and minor elements, where flexible, for the next session. Rating of individual speakers and grading of referral intention from 1 to 10 accounted as a basis for the dialog between central European marketing (EMEA) and single countries where next events were to be organized, de facto transforming the NPS feedback loop into real time CRM-based input to the program direction. With the Net Promoter Score being a unified indicator across the entirety of Philips, the performance measurement has become quantitative, structural and systematic, functional to optimizing the format for marketing purposes: [8.2.5 NPS / CRM / WORKSHOP *"These days marketing activities that valuable like these workshop-scenarios for example are always questioned in terms of what kind of sales does it generate. Which is really hard to tackle because in the end there are lot of effects and lot of determinants to create success on that, and the workshop can only be a part of it. The feedback so far from both, sales organisations, accountants managers but also local marketing people, and also centrally for sure - and together with the NPS scores and objectives measured during these events show that the perception of Philips defiantly increases in this audience, and there is much more openness also to interact and consult us in early stages of projects, in the different markets… […]". –* Nils Hansen *(on 2011 – 2013)*]. NPS outcome was generally positive, with spikes of exceptional performance, also to be contextualized in the low response of initial events. The centrality of NPS might be another indirect symptom of business unit ownership, as financial ownership in 1996 appears empirically unclear between Philips Design (initiator) and Philips Lighting (beneficiary), while in 2006 and 2011–2013, city.people.light activities were firmly in the portfolio of Philips Lighting strategic marketing and product management teams: [8.5.8 WORKSHOP / MARKETING OWNERSHIP *"… And, so, it was really for us – ja – an achievement to get in there, that Fernand actually accepted us to be part of this ….". –* Jasmine Van der Pol *(on 2006)*]. In 2006, the role of Philips Design was largely visible, especially from the viewpoint of leading thought leadership interview networking and workshop facilitation. In 2011–2013 the role of Philips Design was however completely non-existing, as the Global Service Unit was not invited to join the team and its portfolio of program functions was distributed among external contributors. A strategic design consultant (member of staff of Philips Design) was invited and joined the Glasgow workshop, at the end of 2013, as an active observer, with the purpose to learn about the

process and be exposed to stakeholders. One might therefore speak of a complete reversal in terms of power and control of the program, beyond financial ownership, with Philips Design starting the program and controlling its non-commercial relationships for a decade, from 1996 through 2006, to then be excluded as a corporate service unit.

8.1.2) Workshop process as practice-based creation moment of city.people.light

The creative fluidity of workshop practices required to be complemented by structural moments of convergence and consensus, that were enabled at given times, by the aforementioned Urban Futures Matrix (a recurring element of stability in all editions 1996, 2006, 2011-2013), as expressed by multiple quotes: [8.4.7 EDUCATIONAL / WORKSHOP / MATRIX *"And I think all the, you know, I think, for me it should have been, you know, it should have been even more sort of lectures about the academic work, but that - of course also the practical workshop is good too – but, you know, that is never reality, so. So, it's just ideas, but to discuss and talk about the lighting in this manner, and look at the socio-dynamic drivers that you have created for this program was very, very interesting. And I used it – I used it right after for a light plan in the very North and that was very fruitful I think".* – Kristin Bredal on 2012]. In line with such interpretation, the aforementioned "Urban Futures Matrix" re-surfaced again and again, always as a structuring, stabilizing factor: 8.8.3 MATRIX / FALSIFIABLE *"…what we wanted to create is really a seamless experience in a quite short time-frame that really leverages from a more scientific approach over a transfer into lighting to really experiencing and working hands-on with it. That was the idea. So for us the whole scenario or the whole workshop including the research or the revived research was meant to be one string of, ja, of transformation sort of. […]".* – Nils Hansen *(on 2011 – 2013)*]. Completing the professional "practice" with solid "structural" reference for all participants and stakeholders not only to individually act but also to efficiently and effectively operate in group sessions, the matrix therefore represented a reference during transitions from passive absorption of information into collective work modality: [8.8.4 MATRIX / DESIGN PROCESS *"Well, it* [NOTE: the matrix] *is associated with the very beginning of the project. So it is essentially when you are analysing the new project. Once you (…) you actually start the design process. I think the most valuable input has been for that beginning. So that kind of structured, that's where it has contributed//"* – Tapio Rosenius *(on 2011 – 2013)*]. Furthermore, the matrix offers a scalable governing principle for city.people.light as well as subsequent urban futures and strategic work. The adoption of the urban futures matrix as an operational tool for everyday design practices was instead achieved at Zenisk, on the Kirkenes Masterplan project, in Norway, by Kristin Bredal, after her participation to the 2012 *"Create the Livable City"* event in Copenhagen: [8.8.1 MATRIX / TECHNOLOGY *"I think it is helpful in the analysing part of what this particular city or place needs, and it's sort of a helping tool to do the breakdown right and when you do sort of have a clear sort of vision and goal of what you – what you think this place needs, and this is discussed and communicated with the municipality… then I think it can actually be used as a very clear tool – but, well, you know I guess in a way for Kirkenes it came out to a technical solution in the end, which is the one I am proposing now for Philips to make, so yes, on their ideas, but then that is a long, long road to travel before then - if it is actually going to happen, you know".* – Kristin Bredal]. The adoption of city.people.light assets within Bredal's practice stretched into the adoption of socio-cultural modules from the urban futures matrix into the concrete phases of an urban lighting delivery project independently led by the firm in Norway. This might further prove that the approach is not only transferable but also scalable and flexible to specific needs and requirements in different professional

contexts: [8.8.5 WORKSHOP / MATRIX / BARTER *"Intellectually, knowledge wise... But in the end, let's say, the content generated and this knowledge generated during those workshops form the side of our audience towards us should help us to do the right things in the future, both from product development but also from topics that we need to address. And the other way around, the knowledge that we try to transfer during this workshop, the matrix for example…".* – Nils Hansen *(on 2011 – 2013)*]. The multidisciplinary nature of city.people.light might was recorded in several theoretical and primary materials presented so far.

Beyond the matrix, the role of individual talent and "*savoir faire"* remained paramount. When it comes to the actual workshop facilitation, while a peculiar flexibility awarded to the leadership does not automatically imply "genius forecasting", the underlying personalization of a process apparently based on "trained judgment" is a symptom of such possibility: [8.9.2 WORKSHOP / GENIUS FORECASTING *"It was not implemented structurally, that is a little bit – of course we debriefed, I remember we discussed the different topics that were – that came out of the workshops. We of course studied the concepts because we were… I remember that we worked on that, also on how that could be turned into product solutions…. I think you would need someone like you in form of a person, to really open their eyes and to think like: Oh ja, this is really interesting, I am going to get to know more about …"* – Jasmine van der Pol *(on 2006)*]. It should also be noted how such "genius forecasting" modality (or at least an individualistic-driven, personality-based facilitation approach) does play a key role, e.g. at the level of relationships of city.people.light. Within city.people.light workshops it is possible to identify a tension between internal dynamics (and ambitions) of design leadership (naturally restricting the role of external stakeholders to contribution) versus genuine willingness to truly leverage external participation (leading instead to co-creation): [8.11.6 DESIGN / DESIGN PROCESS / TECHNOLOGY *"The process […] Well, it was like: how else would you do it? - once you have the process - a proper design process in place which includes the concept control and analysis and idea creation and particularly the co-creation aspect of it. And then you work that towards a technical solution. That's - that's where you got it".* – Tapio Rosenius *(on 2011 – 2013)*]. A structural and recurring collaborative ambition is indeed one of the predominant features of the Philips internal discourses around city.people.light, and it represented one of the determining drivers in the development of next editions of the program. The validation of Philips as a credible "co-creative partner" appears to be the object of a process of constant scrutiny within the larger networks of stakeholders: [8.17.5 CO-CREATION / WORKSHOP / THOUGHT LEADERSHIP *"…from my definition of co-creation, is like – we, so, it is co-creation between themselves, so that means that everybody injected in this workshop, his knowledge about the market, his knowledge also about how he sees the trends based on experience, also based on his own research maybe, so it was really like, everybody putting together, you know, some, you know, their knowledge to create something together… if you as a manufacturer don't understand these kind of mega trends then, you know, then you are developing the wrong solutions for the future".* – Fernand Pereira *(on 2006)*]. This specific challenge is also part of the internal awareness and reflections pertaining the role of the company in enabling the city.people.light platform, enabling stakeholders to take the lead in the "designer" role: [8.17.6 CONTRIBUTION / WORKSHOP / DESIGN *"They were supporting - they were supporting the workshop participants, who took the role of the designers -- I did not take the role of the designer - the participants were - and the - each group would have one or two or three Philips technicians involved who then helped with the realization. So they had a - I think very meaningful supporting role - of course they*

were also contributing to the design and maybe - maybe in certain cases driving it in certain ways, which is normal - I'd say that is group dynamics". – Tapio Rosenius *(on 2011 – 2013)*]. As already established, however captivating and intense, workshops were not perceived as socialization opportunities to consolidate "communities of practice"; neither were they managed as such. It might be stated that city,people.light coagulated stakeholders within existing networks, and acted as switcher across international networks: [8.19.4 CRM / NETWORKS / WORKSHOP *"As it is a matter of relationship building, the local market that is hosting the event has a say in who they want to invite, with a clear description for, let's say, in the rules of the workshop, it says: you only invite architects, landscape architects and or urban planners or city responsibles that are dealing in this field. To avoid that we get kind of a low level, low involved audience. So far it worked out pretty ok, the final choice is, I said, based on the network that is existing in the markets, if there is no network existing for the local market it is really difficult to get good people on board –we experience that also…".* – Nils Hansen *(on 2011 – 2013)*]. Consequently, an assessment of the character of relationships among stakeholders and between Philips Lighting and stakeholders, is due in order to clarify the actual nature of the resulting socialization and social operational modalities. The outcome of such assessment might be summarized as follows:

a) city.people.light generates relationships and apparently has all requirements necessary to convert relationships into networks;
b) however, the existence of relationships apparently did not lead to a higher level of social communal consolidation, be it communities or networks.

While mechanisms at play that generate reciprocation might be fully valid, (e.g., as aforementioned and above analyzed "barter", or like "switching" across networks and other forms of social functionalities related to network theory in Castells), it is the core of city.people.light relationships that appears looser than a networking structure actually requires, as it did from the viewpoint of communities. Within this analytical direction, it might also be relevant to note how the ideal borders of the city.people.light "practice" were indicated as limited by the exclusion of citizens themselves: [8.18.2 PARTICIPATION / WORKSHOP *"In the actual workshops scenario, I would not do it actually. […] Ja, because it would kind of disturb the urban planning part in it. Because everybody has a very personal opinion about it: I don't like the way the street-luminaires look in my area where I live. But that is just a very small cut out of a bigger problem. And when you bring this very specific focus in these workshops you lose a bit the bigger picture, and that would be a pity, because then also you start – you get into discussions that might be useful for this one person, but not for the group. So therefore I would always say keep it on a professional level and not involve citizens on that level […]"* – Nils Hansen]. Codes aggregate firmly keeping city.people.light workshops within the context of professional stakeholder networks.

Another strategic approach within city.people.light workshop management, as well as in line with High Design principles as presented in Chapter 4, is the multidisciplinary integration of diverse and different practices, from socio-cultural analysis to lighting technology, from the contribution of politicians and city managers to the direct engagement of landscape architects and urban designers, as well in the follow up processes: 8.7.2 WORKSHOP / INSIGHTS / TECHNOLOGY / HORIZON 2 *"…now, let's say, first of all - let's say out of those 200 people they generated I don't know how many different ideas on different levels. Probably only 1, 2, 3, 4, 5 percent will make it to some kind of board, transition paper, towards research and development. But still it's always*

valid to talk about, and these workshops are exactly meant for that purpose. The way forward internally is not so much, or let's say, is using these visions created as a part of a proposition. So, I will not go to Research & Development and say: ok, you need to develop something like [ba ba ba]. I will go more ok: the trend in urban is going more and more into unified environments or into interactive sensing development, it is going into a direction where we, I don't know, we are putting cities underground - one of the scenarios for example. So these visions are insights on which we build propositions, and these propositions then are created in a technological way within R&D, Research & Development. We also can do that on several levels, it is either an immediate transition into a product development or it is more: ok, this we need to investigate further, because for this we would need new technology. Let's just give an example of adaptable optics. […] In a moment you have a luminaire and it is just static and it can switch on, off, dim and everything but the optics will not change. We have some ideas also based on for example city.people.light and these kind of visions on would not it be great if we would have some kind of a fluid optic - a fluid optic that you can control. So, the luminaire as such is becoming a living thing to a certain extent and the light is becoming a living and reacting thing. So, this kind of things are parts of propositions or triggers to research to investigate further, on technological viability but also on acceptance". – Nils Hansen]. As counterbalance to this great variety of knowledge constituencies, the capability to achieve integration through dialog, steering the various processes of interaction through simplification and meaning-making, appears necessary: [8.10.2 INTEGRATING / INTERVIEWS / WORKSHOP *"Well, what I was – first of all I think there was a very big part of research done beforehand. I remember that there was a lot of interviews with architects and that was…, I think, a very strong part of that version. There was very big architects interviewed, Richard Rogers… there was Odile Decq… There was a lot of people that I was, that gave their opinion about urban development and urban trends, and I thought it was very interesting, and – I remember that during the workshop it was also impressive for other people, because you got a very compact amount of knowledge and insights in this – presented like this, very easily, very easy, accessible for people during the workshop…".* – Jasmine van der Pol *(on 2006)*].

A last major influence on the program development between 2006 and 2011–2013 was its aforementioned switch from abstract concepts as visualized deliverables of workshop sessions, to actual installation of working mock up assemblages, the latter being integrally planned as part of events: [8.8.2 WORKSHOP / MOCK UPS *"But that is why I think it is very – I think – I don't say it was funny, because it* [NOTE: 2011 - 2013] *was very different from the first – very different from the first* [NOTE: 2006] *in that sense – different – more concrete, more practice – more focused on practice. I think it was good for the people that were there, actually. Because it was really giving them a tool. And I think it was the right part of really theory, like of course it was for real but of course it was linked – the link with lighting even, in the – when you spoke or when I spoke – but there is the – I mean, it was more accessible, that knowledge, and I think that was – I think it is a nice thing, because I think it started in the 2006 as a really like, as I said, a privileged thing, you know, only very exclusive from – only the real high end thinkers and decision makers and you know – and so I think actually also in terms of general strategy it was kind of nice, as a – over the time it deployed till we get it to everybody, and I think that 2011 was a step in that direction, that you say: we had that city.people.light, and we really need to work on this now. Everybody needs to work and start thinking of these things and contribute to those things. And I think that that was more successful maybe in the last one".* – Jasmine van der Pol *(on 2006 and 2011 - 2013)*]. Such "switch" from sketches to mock ups was already discussed in Chapter 7, in terms of its impact on the

book, e.g. photographic materials. Also, this resulted in a major impact on organizational processes, with events being planned functionally to the conditions of light, availability of technological hardware and in general, towards a different kind of productivity, where the 2007 individual workshop target (40 to 50 sketches) was replaced with a less quantitative, more quality oriented (4 – 5 sketches, however each of them fully implemented in a mock up installation): [8.2.3 MULTIPURPOSE / MOCK UPS *"Because we wanted to have something that generates an immediate – it needs to generate– we wanted something to generate an immediate result for our audience, but also for ourselves. We wanted to create a platform where our sales people can connect with something that they feel comfortable with to our customers, which would not be city.people.light research, because that is not our sales guys. It is more like: ok we do a mock-up, we work on this - but without selling - but they need to have a field of confidence…".* – Nils Hansen *(on 2011 – 2013)*]. One might identify the above described ambition to create a higher degree of intimacy between contributing stakeholders and Philips technology, through a more direct educational approach adopted as requirement in *"Create the Livable City"* and, much more explicitly, in its ancillary Polish sister program, "Architects of Light", both manifestations of a business intent originating from Philips Lighting strategic marketing.

8.2) OPEN CODING PROCEDURE

As based on the methodology and operationalization thereof, and as introduced in the previous chapters, Open Codes were generated following exactly the same unified procedural steps as presented in Chapters 6 and 7, with the overview of Prefigured Coding fragmentation on transcript text and subsequent treatment of the resulting materials reported in Appendix A, in their emerging form as transitional textual fragments from transcripts. Process details will not be repeated here, they can be found in the general introduction to the empirical section, and in the same specific point of Chapter 6 and Chapter 7. Differently than Chapter 7 (25 codes), Chapter 8 (28 codes) will present textually more dense and articulated codes. From a preliminary textual analysis, it might be observed how respondents were proactive in mentioning workshops with a greater quantity and quality of reference. At the level of Prefigured Coding, no quotes were allocated to the "Products" sub-cluster, as this peculiar topic was logically not represented in the analysis of the specific process aspects of city.people.light. This was a research direction decision taken on the basis of the awareness of mutual relationships existing between these two "halves" of the Central Phenomenon, with the "workshop" taking place before any editorial conception related to the "book". Once again, it is appropriate to reiterate that interviews were conducted with an exploratory and open approach, indicating a higher level of memorability or perceived immediate relevance of workshops (practice-focused moment of creation) with respect to the books as structural moments of communication of city.people.light.

Basics

8.1 Key outcome: what city.people.light generated

8.1.1 THOUGHT LEADERSHIP / FUNCTIONAL KNOWLEDGE

Functional Knowledge

8.1.2 WORKSHOP / ROADMAP CONVERSION / FREESTREET

8.1.3 WORKSHOP / ROADMAP CONVERSION

8.1.4 WORKSHOP / INSIGHTS / BEYOND FUNCTIONAL

8.1.5 WORKSHOP / ROADMAP / DESIGN

8.1.6 ROADMAP / FREESTREET / DECLUTTERING

8.1.7 ROADMAP / INSIGHTS / FREESTREET

8.1.8 DESIGN / ROADMAP

Monitoring Knowledge

8.1.9 WORKSHOP / MONITORING

8.1.10 MATRIX / WORKSHOP / INNOVATION LOOP / MONITORING

8.1.11 MONITORING / GENIUS FORECASTING

Reflexive Knowledge

8.1.12 REFLEXIVE / SALES

8.2 Key performance indicators:
how the value of city.people.light outcome was measured

8.2.1 MULTIPURPOSE / BRAND THEME

8.2.2 DESIGN / THOUGHT LEADERSHIP

8.2.3 MULTIPURPOSE / MOCK UPS

8.2.4 NPS / KPI / NETWORKS

8.2.5 NPS / CRM / WORKSHOP

8.2.6 NPS

8.3 Perceived Points of uniqueness of city.people.light

8.3.1 MULTIDISCIPLINARY

8.3.2 DESIGN / MULTIPURPOSE

8.3.3 WORKSHOP / BARTER / SWITCHER

8.3.4 EDUCATIONAL / UNIQUENESS

8.3.5 BRAND THEME

8.3.6 BRAND THEME / CONTINUITY IN TIME

8.3.7 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD

8.3.8 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD

8.3.9 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD

8.4 Educational unique value of city.people.light *(academic, applied)*

8.4.1 EDUCATIONAL / MULTIPURPOSE / DESIGN

8.4.2 EDUCATIONAL / WORKSHOP

8.4.3 MATRIX

8.4.4 COMMUNITY / DESIGNER

8.4.5 TECHNOLOGY / EDUCATIONAL

8.4.6 WORKSHOP / MULTIPURPOSE / WROCLAW

8.4.7 EDUCATIONAL / WORKSHOP / MATRIX

8.4.8 EDUCATIONAL / DESIGNER

8.5 Financial Ownership

8.5.1 BUDGET MANAGEMENT

8.5.2 MARKETING OWNERSHIP / NETWORKS / WORKSHOP

8.5.3 MARKETING OWNERSHIP / CRM

8.5.4 DESIGN / BUDGET MANAGEMENT / CONTINUITY IN TIME

8.5.5 MARKETING / CONTINUITY IN TIME / WORKSHOP

8.5.6 BUDGET MANAGEMENT / MARKETING / CONTINUITY IN TIME

8.5.7 MARKETING OWNERSHIP

8.5.8 WORKSHOP / MARKETING OWNERSHIP

8.6 Post-event / post-program applications

8.6.1 NOT LEVERAGED

8.6.2 WORKSHOP / GENIUS FORECASTING

8.6.3 SWITCHER / BRAND THEME

8.6.4 BRAND THEME / CRM / NETWORKS

8.6.5 WORKSHOP / MARKETING / WROCLAW

8.6.6 CRM

Futures

***8.7* Innovation horizons** *(Continuous innovation, disruptive innovation)*

Horizon 1

8.7.1 ROADMAP / FREESTREET

Horizon 2

8.7.2 WORKSHOP / INSIGHTS / TECHNOLOGY / HORIZON 2

Horizon 3

8.7.3 SKETCHES / HORIZON 3

8.7.4 HORIZON 3

***8.8* Structures** *(Workshops, Matrix)*

8.8.1 MATRIX / TECHNOLOGY

8.8.2 WORKSHOP / MOCK UPS

8.8.3 MATRIX / FALSIFIABLE

8.8.4 MATRIX / DESIGN PROCESS

8.8.5 WORKSHOP / MATRIX / BARTER

8.8.6 MATRIX / DESIGN / WORKSHOP

8.8.7 MATRIX / SOCIO-CULTURAL

8.8.8 MATRIX / LEVERAGED

8.8.9 MATRIX / LEVERAGED

8.8.10 THOUGHT LEADERSHIP / WORKSHOP / VISUALIZATION

***8.9* Forecasting Rationale** *(Falsifiable Forecasting, Genius Forecasting)*

8.9.1 WORKSHOP / FALSIFIABLE

8.9.2 WORKSHOP / GENIUS FORECASTING

***8.10* Forecasting Techniques** *(Generating, Integrating)*

8.10.1 INTEGRATING / DESIGNER

8.10.2 INTEGRATING / INTERVIEWS / WORKSHOP

8.10.3 SKETCHES / SCENARIO / GENERATING / WORKSHOP

***8.11* Technology** *(High Tech, High Design)*

8.11.1 TECHNOLOGY / REFLEXIVE

8.11.2 TECHNOLOGY / HIGH DESIGN

8.11.3 HIGH DESIGN

8.11.4 HIGH DESIGN / MARKETING

8.11.5 DESIGN / DESIGN PROCESS

8.11.6 DESIGN / DESIGN PROCESS / TECHNOLOGY

8.11.7 DESIGN / DESIGN THINKING

8.11.8 TECHNOLOGY

PRODUCT

***8.12* Book** *(Editorial Design, Distribution)*

***8.13* Storylines** *(Narrative Practices, Para-scientific Structures)*

***8.14* Concepts** *(Physical objects, social spaces)*

***8.15* Symbols** *(Creative Leadership, Commercial Focus)*

PROCESS

***8.16* Relationship Management** *(Community versus CRM)*

8.16.1 CRM / SWITCHER / WORKSHOP

8.16.2 MARKETING / SWITCHER / DESIGNER

8.16.3 MARKETING / SWITCHER / WORKSHOP

8.16.4 MARKETING / SWITCHER

8.16.5 COMMUNITY / SOCIAL MEDIA

8.16.6 MARKETING / SWITCHER

8.16.7 COMMUNITY / WORKSHOP

8.16.8 COMMUNITY / MATRIX / WORKSHOP

8.16.9 COMMUNITY / NETWORKS / WORKSHOP

8.17 ***Openness*** *(Co-creation, Contribution - for professional stakeholders)*

8.17.1 CRM / CONTRIBUTION / WORKSHOP

8.17.2 CONTRIBUTION / ARCHITECTS' APPROACH

8.17.3 MARKETING / ARCHITECTS' APPROACH / DESIGNER

8.17.4 CONTRIBUTION / CRM / WORKSHOP

8.17.5 CO-CREATION / WORKSHOP / THOUGHT LEADERSHIP

8.17.6 CONTRIBUTION / WORKSHOP / DESIGN

8.17.7 CONTRIBUTION / WORKSHOP / CO-CREATION

8.17.8 CO-CREATION / DESIGN PROCESS / WORKSHOP

8.17.9 CONTRIBUTION / DESIGNER

8.17.10 CO-CREATION / WORKSHOP

8.17.11 SKETCHES / CO-CREATION / DESIGN

8.18 ***Participation*** *(Participatory, Normative – for non-professional stakeholders)*

8.18.1 PARTICIPATION

8.18.2 PARTICIPATION / WORKSHOP

8.19 ***Networks*** *(programmer, switcher)*

8.19.1 SWITCHER / CRM

8.19.2 SWITCHER

8.19.3 SWITCHER

8.19.4 CRM / NETWORKS / WORKSHOP

8.19.5 BARTER

8.19.6 BARTER / WORKSHOP

8.19.7 BARTER

8.19.8 PROGRAMMER

8.19.9 SWITCHER / BARTER / WORKSHOP

8.3) GENERATIVE SUBCATEGORIES AND PROPOSITIONS

As introduced in Chapters 6 and 7 above, and as methodologically clarified in the general introduction to the entire empirical section, Chapter 8 will also report Generative Categories as identified by clustering the Open Codes, based on semantic affinity related to the first word identifying each code, with the exact same procedural approach. Additionally, each subcategory was rated with the same numeric value index, based on the recurring interpretative framework:

Index value 1 = statement is weak
Index value 2 = statement is representative of the Generative Subcategory
Index value 3 = statement is representative and editorially compact
Index value 4 = representative, compact, relevant to the key axial category
Index value 5 = statement is strong for Axial Coding purposes.

As in Chapters 6 and 7, index values express only a generic statement of appraisal and also here will have no direct impact on the Axial Coding procedure, in order to maintain the research findings as much as possible representative of all the opinions recorded in the original transcripts. For the rest, all methodological considerations and operational notations made in Chapters 6 and 7 apply.

Generative Subcategory 8.1:

8.1 Generative Proposition (5):

Workshops are formally structured, visually documented and driven by theoretical and trend analysis constituencies of the program. The purpose of the program goes beyond thought leadership, including relationship management and product innovation.

8.1.1 THOUGHT LEADERSHIP / FUNCTIONAL KNOWLEDGE
8.8.10 THOUGHT LEADERSHIP / WORKSHOP / VISUALIZATION

Generative Subcategory 8.2:

8.2 Generative Proposition (5):

Workshops leverage a flexible, scalable format, based on prior expert interviews, to intuitively deliver insights and concepts, which will be converted for 1% - 5% into product solutions and CRM relationships. Such conversion from future visions into company R&D and technology development requires additional work beyond the workshop as such. Workshops offer content (barter) and trigger new relationships (switcher). Marketing leadership controls access to workshops. Genius forecasting modalities apply to the overall process.

8.1.2 WORKSHOP / ROADMAP CONVERSION / FREESTREET
8.1.3 WORKSHOP / ROADMAP CONVERSION
8.1.4 WORKSHOP / INSIGHTS / BEYOND FUNCTIONAL
8.1.5 WORKSHOP / ROADMAP / DESIGN
8.1.9 WORKSHOP / MONITORING
8.3.3 WORKSHOP / BARTER / SWITCHER
8.4.5 WORKSHOP / TECHNOLOGY / EDUCATIONAL
8.4.6 WORKSHOP / MULTIPURPOSE / WROCLAW
8.5.8 WORKSHOP / MARKETING OWNERSHIP
8.6.2 WORKSHOP / GENIUS FORECASTING
8.6.5 WORKSHOP / MARKETING / WROCLAW
8.7.2 WORKSHOP / INSIGHTS / TECHNOLOGY / HORIZON 2
8.8.2 WORKSHOP / MOCK UPS
8.9.1 WORKSHOP / FALSIFIABLE
8.9.2 WORKSHOP / GENIUS FORECASTING

Generative Subcategory 8.3:

8.3 Generative Proposition (1):

Trend thematic clusters (Decluttering) as identified in the program and observed in any of its ancillary spin off, lead product development into innovative solutions (Freestreet).

8.1.6 ROADMAP / FREESTREET / DECLUTTERING
8.1.7 ROADMAP / INSIGHTS / FREESTREET
8.7.1 ROADMAP / FREESTREET

Generative Subcategory 8.4:

8.4 Generative Propositions (2):

Design Thinking is at the basis of the program, which is structured according to a future-oriented, multidisciplinary, playful design process. The program fails to rise to company process status, being managed as an individual project. The program promotes the professional value of lighting design in general. The connections between new products and program remain unclear to external stakeholders.

8.1.8 DESIGN / ROADMAP
8.2.2 DESIGN / THOUGHT LEADERSHIP
8.3.2 DESIGN / MULTIPURPOSE
8.5.4 DESIGN / BUDGET MANAGEMENT / CONTINUITY IN TIME
8.11.5 DESIGN / DESIGN PROCESS
8.11.6 DESIGN / DESIGN PROCESS / TECHNOLOGY

8.11.7 DESIGN / DESIGN THINKING

Generative Subcategory 8.5:

8.5 Generative Proposition (5):

From visioning to prototyping, the socio-cultural matrix is the para-scientific, analytical, clear starting point of a hands-on lighting design workshop. The matrix transfers knowledge to workshop participants, while working as a knowledge management reference for the business unit. The matrix potentially enables the creation of a company database of potential R&D, while offering a monitoring opportunity ("sanity check"). The matrix can generate new tools to address specific project challenges, when adopted.

8.1.10 MATRIX / WORKSHOP / INNOVATION LOOP / MONITORING
8.4.3 MATRIX
8.8.1 MATRIX / TECHNOLOGY
8.8.3 MATRIX / FALSIFIABLE
8.8.4 MATRIX / DESIGN PROCESS
8.8.5 WORKSHOP / MATRIX / BARTER
8.8.6 MATRIX / DESIGN / WORKSHOP
8.8.7 MATRIX / SOCIO-CULTURAL
8.8.8 MATRIX / LEVERAGED
8.8.9 MATRIX / LEVERAGED

Generative Subcategory 8.6:

8.6 Generative Proposition (4):

Sales team members and internal design team members of the business unit join the program for educational and observation purposes only, delivering enabling support to stakeholders but without any attempt to perform direct sales.

8.1.12 REFLEXIVE / SALES

Generative Subcategory 8.7:

8.7 Generative Proposition (5):

The practical goal of the program is converging towards a dialog with stakeholders, excluding direct sales, where workshop mock-ups are conversation triggers.

8.2.1 MULTIPURPOSE / BRAND THEME
8.2.3 MULTIPURPOSE / MOCK UPS

Generative Subcategory 8.8:

8.8 Generative Proposition (5):

Benefits of the program are appreciated at the level of brand perception and CRM profiling. Workshops are challenged in terms of their commercial value (conversion to

sales). It is doubtful that NPS technically offers the possibility to evaluate people's performance and the program in general. Feedback is provided by sales organizations.

8.2.6 NPS
8.2.4 NPS / KPI / NETWORKS
8.2.5 NPS / CRM / WORKSHOP

Generative Subcategory 8.9:

8.9 Generative Proposition (3):

The program is a multi-level urban research platform.

8.3.1 MULTIDISCIPLINARY

Generative Subcategory 8.10:

8.10 Generative Proposition (2)

The program exists for 20 years and is internally recognized. Extensions of the program (e.g., awards) are owned by the business unit and represent a branding opportunity. Further networking extensions might result in the program being perceived as a sub-brand in itself.

8.3.5 BRAND THEME
8.3.6 BRAND THEME / CONTINUITY IN TIME
8.3.7 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD
8.3.8 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD
8.3.9 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD
8.6.4 BRAND THEME / CRM / NETWORKS

Generative Subcategory 8.11:

8.11 Generative Proposition (5):

The theoretical constituencies of the workshops might be increased in time and simplified in format, although knowledge sharing and learning opportunities are recognized as "accessible" internally. The educational, academic and research constituencies of the program represent unique value, perhaps beyond the understanding of the business unit.

8.4.1 EDUCATIONAL / MULTIPURPOSE / DESIGN
8.4.2 EDUCATIONAL / WORKSHOP
8.4.7 EDUCATIONAL / WORKSHOP / MATRIX
8.4.8 EDUCATIONAL / DESIGNER
8.3.4 EDUCATIONAL / UNIQUENESS

Generative Subcategory 8.12:

8.12 Generative Proposition (5):

Workshops offer a key moment of informal interaction and knowledge exchange among professional stakeholders. The program does not result in a specific professional community, especially in terms of social media perspective.

8.4.4 COMMUNITY / DESIGNER
8.16.5 COMMUNITY / SOCIAL MEDIA
8.16.7 COMMUNITY
8.16.8 COMMUNITY / MATRIX / WORKSHOP
8.16.9 COMMUNITY / NETWORKS / WORKSHOP

Generative Subcategory 8.13:

8.13 Generative Proposition (1):

The budget allocation to enable the program gets challenged from one edition to the next, in spite of the repetitive nature of the program.

8.5.1 BUDGET MANAGEMENT
8.5.6 BUDGET MANAGEMENT / MARKETING / CONTINUITY IN TIME

Generative Subcategory 8.14:

8.14 Generative Proposition (5):

The workshops are initiated by marketing as a brand exposure opportunity for CRM ("door opener"), with participant invitation depending on country sales team selection. Invitation and inclusion are determined by role and responsibilities of decision makers, architects and urban lighting related professionals. The program is intended as extended in time.

8.5.2 MARKETING OWNERSHIP / NETWORKS / WORKSHOP
8.5.3 MARKETING OWNERSHIP / CRM
8.5.7 MARKETING OWNERSHIP
8.16.2 MARKETING / SWITCHER / DESIGNER
8.16.3 MARKETING / SWITCHER / WORKSHOP
8.16.4 MARKETING / SWITCHER
8.16.6 MARKETING / SWITCHER
8.17.3 MARKETING / ARCHITECTS' APPROACH / DESIGNER
8.5.5 MARKETING / CONTINUITY IN TIME / WORKSHOP

Generative Subcategory 8.15:

8.15 Generative Proposition (2):

The program is not optimally shared within the business unit and corporation.

8.6.1 NOT LEVERAGED

Generative Subcategory 8.16:

8.16 Generative Proposition (2):

The program triggers an intuitive mindset possibly resulting in informal and non-systematic monitoring practices in regular project work.
8.1.11 MONITORING / GENIUS FORECASTING

Generative Subcategory 8.17:

8.17 Generative Proposition (5):

Workshops offer both the business unit and stakeholders a platform to mutually switch into networks. The business unit accesses exclusive professional circles. Invitation to join the program is perceived as a status marker in professional terms. Program extensions (e.g., awards) are motivating for stakeholders.

8.6.3 SWITCHER / BRAND THEME
8.19.1 SWITCHER / CRM
8.19.2 SWITCHER
8.19.3 SWITCHER
8.19.9 SWITCHER / BARTER / WORKSHOP

Generative Subcategory 8.18:

8.18 Generative Proposition (5):

Country market sales teams determine workshop attendance, based on their insights in local networks. Workshops are engaging and entertaining. There is no specific follow up designed after workshops.

8.6.6 CRM
8.16.1 CRM / SWITCHER / WORKSHOP
8.17.1 CRM / CONTRIBUTION / WORKSHOP
8.19.4 CRM / NETWORKS / WORKSHOP

Generative Subcategory 8.19:

8.19 Generative Proposition (5):

During workshops, sketching enables the best future visioning and idea generation, as they support concept creation beyond current feasibility. Sketches need to be managed during and after workshop in view of future publication, possibly involving senior designers as ancillary illustrators.

8.7.3 SKETCHES / HORIZON 3
8.10.3 SKETCHES / SCENARIO / GENERATING / WORKSHOP
8.17.11 SKETCHES / CO-CREATION / DESIGN

Generative Subcategory 8.20:

8.20 Generative Proposition (2):

The program is open to include radical wild card hypothesis, including the future elimination of artificial lighting and its implications.

8.7.4 HORIZON 3

Generative Subcategory 8.21:

8.21 Generative Proposition (5):

Workshops include the synthesis of distinctive expert interviews with thought leaders, as executed before. The program enables stakeholders to engage in personal reflexivity on the lighting design professional practice.

8.10.1 INTEGRATING / DESIGNER
8.10.2 INTEGRATING / INTERVIEWS / WORKSHOP

Generative Subcategory 8.22:

8.22 Generative Proposition (2):

The program is not technology driven and is not designed for an engineering mindset.

8.11.1 TECHNOLOGY / REFLEXIVE
8.11.2 TECHNOLOGY / HIGH DESIGN
8.11.8 TECHNOLOGY

Generative Subcategory 8.23:

8.23 Generative Proposition (3):

The program can be identified as a “design program”, enabling deeper reflection on the lighting design professional practice than fast paced project delivery.

8.11.3 HIGH DESIGN
8.11.4 HIGH DESIGN / MARKETING

Generative Subcategory 8.24:

8.24 Generative Proposition (5):

Workshop participants contribute to and lead concept design, based on teamwork dynamics. The program is designed as outside-in and from one edition to the next one it opens itself to higher involvement by inviting increasingly applicative professional stakeholders.

8.17.2 CONTRIBUTION / ARCHITECTS’ APPROACH
8.17.4 CONTRIBUTION / CRM / WORKSHOP
8.17.6 CONTRIBUTION / WORKSHOP / DESIGN
8.17.7 CONTRIBUTION / WORKSHOP / CO-CREATION
8.17.9 CONTRIBUTION / DESIGNER

Generative Subcategory 8.25:

8.25 Generative Proposition (5):

Workshops are a knowledge exchange intensive experience, with a maximum degree of stakeholder contribution, which can be perceived as co-creation. The business unit provides a solid framework based on pre-existing knowledge.

8.17.5 CO-CREATION / WORKSHOP / THOUGHT LEADERSHIP
8.17.8 CO-CREATION / DESIGN PROCESS / WORKSHOP
8.17.10 CO-CREATION / WORKSHOP

Generative Subcategory 8.26:

8.26 Generative Proposition (5):

Workshops are focused on urban planning for professional stakeholders. A wider audience, e.g. citizens, would negatively affect the process and individually feel alienated. Citizens might be instead consulted at different times.

8.18.1 PARTICIPATION
8.18.2 PARTICIPATION / WORKSHOP

Generative Subcategory 8.27:

8.27 Generative Proposition (5):

Workshops are designed as knowledge exchanging events, where 50% of the time is invested in providing stakeholders with valuable research and 50% of the time is invested in earning back value from stakeholders.

8.19.5 BARTER
8.19.6 BARTER / WORKSHOP
8.19.7 BARTER

Generative Subcategory 8.28:

8.28 Generative Proposition (2):

The program is focused on engaging with multiple stakeholders and activating feedback loops. The approach behind the program is more important than its actual content.

8.19.8 PROGRAMMER

8.4) AXIAL CODING

Like in Chapters 6 and 7, in a second wave of (axial) coding operated on the Generative Propositions, now focused on 2006 and 2011-2013 process-focused Open Codes, will be inter-connected (Creswell, 2013, 195). Leading to the consolidation and further description of the Central Phenomenon. The Axial Coding was performed on the basis of

the methodological framework (as adapted from: Creswell, 203, 274) based on the following four questions:

- causal conditions: what influenced this phenomenon to occur?
- strategies: what strategies were observed during the process?
- context: what influenced such strategies?
- consequences: what effect occurred?

Once again, each of the four questions above will generate a specific "Theme", contributing to the understanding of the Central Phenomenon. As anticipated in the above introduction to the empirical section and Chapters 6 and 7, it might be recalled how "codes" (as emerged from Open Coding) will fundamentally differ from "Themes" (as emerged from Axial Coding), to be then organized in Storylines through Selective Coding. Consistently, also in Chapter 6, "Themes" did emerge from the Axial Coding in the form of extremely synthetic lines, summarizing the focus of the single axis. In terms of further procedural step, "Themes" will act as "title headlines" of the Selective Coding textual materials.

8.4.1) Key Generative Category: Workshop

Logically, given its focus, the "Key Generative Category" for Chapter 8 shifts to "Workshop", in order to explore the process and practice-focused constituencies of the Central Phenomenon. Generative Propositions will be semantically processed and treated accordingly, on the basis of their sequential identifier, in order to keep the process objective. Once again, "Design" will emerge from the analysis as one of the axial Themes, namely the "Strategies" one as in Chapter 7. In Chapter 8, "Design" will generate a whole new Theme that will describe its specific function within workshops.

Axial Coding: Causal Conditions

Theme:
Workshops as CRM-focused opportunities for dialog and networking

Axial Code: Workshop

8.7 Generative Proposition (5):

The practical goal of the program is converging towards a dialog with stakeholders, excluding direct sales, where workshop mock-ups are conversation triggers.

8.14 Generative Proposition (5):

The workshops are initiated by marketing as a brand exposure opportunity for CRM ("door opener"), with participant invitation depending on country sales team selection. Invitation and inclusion are determined by role and responsibilities of decision makers, architects and urban lighting related professionals. The program is intended as extended in time.

8.18 Generative Proposition (5):

Country market sales teams determine workshop attendance, based on their insights in local networks. Workshops are engaging and entertaining. There is no specific follow up designed after workshops.

Related Categories:

8.13 Generative Proposition (1):

The budget allocation to enable the program gets challenged from one edition to the next, in spite of the repetitive nature of the program.

8.28 Generative Proposition (2):

The program is focused on engaging with multiple stakeholders and activating feedback loops. The approach behind the program is more important than its actual content.

Axial Coding: Strategies

Theme:
Design practices and the matrix as multidisciplinary integrators

Axial Code: Workshop

8.5 Generative Proposition (5):

From visioning to prototyping, the socio-cultural matrix is the para-scientific, analytical, clear starting point of a hands-on lighting design workshop. The matrix transfers knowledge to workshop participants, while working as a knowledge management reference for the business unit. The matrix potentially enables the creation of a company database of potential R&D, while offering a monitoring opportunity ("sanity check"). The matrix can generate new tools to address specific project challenges, when adopted.

8.19 Generative Proposition (5):

During workshops, sketching enables the best future visioning and idea generation, as they support concept creation beyond current feasibility. Sketches need to be managed during and after workshop in view of future publication, possibly involving senior designers as ancillary illustrators.

8.21 Generative Proposition (5):

Workshops include the synthesis of distinctive expert interviews with thought leaders, as executed before. The program enables stakeholders to engage in personal reflexivity on the lighting design professional practice.

8.24 Generative Proposition (5):

Workshop participants contribute to and lead concept design, based on teamwork dynamics. The program is designed as outside-in and from one edition to the next one it opens itself to higher involvement by inviting increasingly applicative professional stakeholders.

8.27 Generative Proposition (5):

Workshops are designed as knowledge exchanging events, where 50% of the time is invested in providing stakeholders with valuable research and 50% of the time is invested in earning back value from stakeholders.

Related Categories:

8.4 Generative Propositions (2):

Design Thinking is at the basis of the program, which is structured according to a future-oriented, multidisciplinary, playful design process. The program fails to rise to company process status, being managed as an individual project. The program promotes the professional value of lighting design in general. The connections between new products and program remain unclear to external stakeholders.

8.6 Generative Proposition (4):

Sales team members and internal design team members of the business unit join the program for educational and observation purposes only, delivering enabling support to stakeholders but without any attempt to perform direct sales.

8.20 Generative Proposition (2):

The program is open to include radical wild card hypothesis, including the future elimination of artificial lighting and its implications.

8.22 Generative Proposition (2):

The program is not technology driven and is not designed for an engineering mindset.

8.23 Generative Proposition (3):

The program can be identified as a “design program”, enabling deeper reflection on the lighting design professional practice than fast paced project delivery.

Axial Coding: Context

Theme:
Workshop as precisely structured and targeted events, with clear KPI’s

Axial Code: Workshop

8.1 Generative Proposition (5):

Workshops are formally structured, visually documented and driven by theoretical and trend analysis constituencies of the program. The purpose of the program goes beyond thought leadership, including relationship management and product innovation.

8.2 Generative Proposition (5):

Workshops leverage a flexible, scalable format, based on prior expert interviews, to intuitively deliver insights and concepts, which will be converted for 1% - 5% into product solutions and CRM relationships. Such conversion from future visions into company R&D and technology development requires additional work beyond the workshop as such. Workshops offer content (barter) and trigger new relationships (switcher). Marketing leadership controls access to workshops. Genius forecasting modalities apply to the overall process.

8.8 Generative Proposition (5):

Benefits of the program are appreciated at the level of brand perception and CRM profiling. Workshops are challenged in terms of their commercial value (conversion to sales). It is doubtful that NPS technically offers the possibility to evaluate people's performance and the program in general. Feedback is provided by sales organizations.

8.11 Generative Proposition (5):

The theoretical constituencies of the workshops might be increased in time and simplified in format, although knowledge sharing and learning opportunities are recognized as "accessible" internally. The educational, academic and research constituencies of the program represent unique value, perhaps beyond the understanding of the business unit.

8.25 Generative Proposition (5):

Workshops are knowledge exchange intensive experience, with a maximum degree of stakeholder contribution, which can be perceived as co-creation. The business unit provides a solid framework based on pre-existing knowledge.

8.26 Generative Proposition (5):

Workshops are focused on urban planning for professional stakeholders. A wider audience, e.g. citizens, would negatively affect the process and individually feel alienated. Citizens might be instead consulted at different times.

Related Categories:

8.9 Generative Proposition (3):

The program is a multi-level urban research platform.

8.15 Generative Proposition (2):

The program is not optimally shared within the business unit and corporation.

Axial Coding: Consequences

Theme:
Workshops as temporary networking platforms, not resulting in communities

Axial Code: Workshop

8.12 Generative Proposition (5):

Workshops offer a key moment of informal interaction and knowledge exchange among professional stakeholders. The program does not result in a specific professional community, especially in terms of social media perspective.

8.17 Generative Proposition (5):

Workshops offer both the business unit and stakeholders a platform to mutually switch into networks. The business unit accesses exclusive professional circles. Invitation to join the program is perceived as a status marker in professional terms. Program extensions (e.g., awards) are motivating for stakeholders.

Related Categories:

8.3 Generative Proposition (1):

Trend thematic clusters (Decluttering) as identified in the program and observed in any of its ancillary spin off, lead product development into innovative solutions (Freestreet).

8.10 Generative Proposition (2)

The program exists for 20 years and is internally recognized. Extensions of the program (e.g., awards) are owned by the business unit and represent a branding opportunity. Further networking extensions might result in the program being perceived as a sub-brand in itself.

8.16 Generative Proposition (2):

The program triggers an intuitive mindset possibly resulting in informal and non-systematic monitoring practices in regular project work.

8.4.2) Axial Coding Final Deliverables: Themes

The Axial Coding for Chapter 8 ("Process") delivered the following Themes:

Causal Conditions Theme:
Workshops as CRM-focused opportunities for dialog and networking

Strategies Theme:
Design practices and the matrix as multidisciplinary integrators

Context Theme:
Workshop as precisely structured and targeted events, with clear KPI's

Consequences Theme:
Workshops as temporary networking platforms, not resulting in communities

As in Chapter 6 and 7, Axial Themes will be key to form the Selective Coding outcome, namely as an editorial title to each Selective Code, while the latter will include all Generative Propositions. This extension of the natural role of Axial Themes into an editorial asset for selective codes is more important in Chapter 8 than in the earlier empirical analysis chapters, because here the Selective Codes offer more granularity at the cost of synthesis, due to the outcome of the entire coding process. In the face of longer texts, therefore, it appears peculiarly efficient and effective to orientate the development of this final coding installment by associating to each Selective Codes its thematic title, as an opener to provide semantic focus to the storyline.

8.5) SELECTIVE CODING: STORYLINES

In Chapter 8, as in earlier chapters, Selective Coding is the last procedure of analysis. Also in this context, Selective Coding marks the development of organic, sequential and meaningful textual units, with self-contained sense functional to theoretical development. Generative Propositions were re-clustered in terms of mutual relationships in the context of each axial Theme, on an abductive basis. The Key Generative Category was adopted as key reference. Codes appeared in higher quantity and density within each axial Theme, leading to more complex and articulated explanations where details and data provide granularity to the Central Phenomenon. This thicker texture might be considered a positive feature in terms of accuracy of the research while presenting a key challenge to achieve the necessary synthesis for further processing. In this respect, the Axial Coding and Selective Coding procedures of Chapter 8 deliver a less actionable, more massive outcome than Chapter 7. Based on these operational principles, this is the result of Selective Coding for Chapter 8:

8.5.1) Causal Conditions Theme:
Workshops as CRM-focused opportunities for dialog and networking

The practical goal of the program is converging towards a dialog with stakeholders, excluding direct sales, where workshop mock-ups are conversation triggers. The workshops are initiated by marketing as a brand exposure opportunity for CRM ("door opener"), with participant invitation depending on country sales team selection. Invitation and inclusion are determined by role and responsibilities of decision makers, architects and urban lighting related professionals. The program is intended as extended in time. Country market sales teams determine workshop attendance, based on their insights in local networks. Workshops are engaging and entertaining. There is no specific follow up designed after workshops.

The program is focused on engaging with multiple stakeholders and activating feedback loops. The approach behind the program is more important than its actual content. The budget allocation to enable the program gets challenged from one edition to the next, in spite of the repetitive nature of the program.

8.5.2) Strategies Theme:
Design practices and the matrix as multidisciplinary integrators

Workshop participants contribute to and lead concept design, based on teamwork dynamics. The program is designed as outside-in and from one edition to the next one it opens itself to higher involvement by inviting increasingly applicative professional stakeholders. Workshops include the synthesis of distinctive expert interviews with thought leaders, as executed before. The program enables stakeholders to engage in personal reflexivity on the lighting design professional practice. From visioning to prototyping, the socio-cultural matrix is the para-scientific, analytical, clear starting point of a hands-on lighting design workshop. The matrix transfers knowledge to workshop participants, while working as a knowledge management reference for the business unit. The matrix potentially enables the creation of a company database of potential R&D, while offering a monitoring opportunity ("sanity check"). The matrix can generate new tools to address specific project challenges, when adopted. During workshops, sketching enables the best future visioning and idea generation, as they support concept creation beyond current feasibility. Sketches need to be managed during and after workshop in view of future publication, possibly involving senior designers as ancillary illustrators. Workshops are designed as knowledge exchanging events, where 50% of the time is invested in providing stakeholders with valuable research and 50% of the time is invested in earning back value from stakeholders.

Design Thinking is at the basis of the program, which is structured according to a future-oriented, multidisciplinary, playful design process. The program fails to rise to company process status, being managed as an individual project. The program promotes the professional value of lighting design in general. The connections between new products and program remain unclear to external stakeholders. The program is open to include radical wild card hypothesis, including the future elimination of artificial lighting and its implications. The program is not technology driven and is not designed for an engineering mindset. Sales team members and internal design team members of the business unit join the program for educational and observation purposes only, delivering enabling support to stakeholders but without any attempt to perform direct sales. The program can be identified as a "design program", enabling deeper reflection on the lighting design professional practice than fast paced project delivery.

8.5.3) Context Theme:
Workshop as precisely structured and targeted events, with clear KPI's

Workshops are formally structured, visually documented and driven by theoretical and trend analysis constituencies of the program. The purpose of the program goes beyond thought leadership, including relationship management and product innovation. Benefits of the program are appreciated at the level of brand perception and CRM profiling. Workshops are challenged in terms of their commercial value (conversion to sales). It is doubtful that NPS technically offers the possibility to evaluate people's performance and the program in general. Feedback is provided by sales organizations. Workshops are focused on urban planning for professional stakeholders. A wider audience, e.g. citizens, would negatively affect the process and individually feel alienated. Citizens might be instead consulted at different times. Workshops are a knowledge exchange intensive experience, with a maximum degree of stakeholder contribution, which

can be perceived as co-creation. The business unit provides a solid framework based on pre-existing knowledge. The theoretical constituencies of the workshops might be increased in time and simplified in format, although knowledge sharing and learning opportunities are recognized as "accessible" internally. The educational, academic and research constituencies of the program represent unique value, perhaps beyond the understanding of the business unit. Workshops leverage a flexible, scalable format, based on prior expert interviews, to intuitively deliver insights and concepts, which will be converted for 1% - 5% into product solutions and CRM relationships. Such conversion from future visions into company R&D and technology development requires additional work beyond the workshop as such. Workshops offer content (barter) and trigger new relationships (switcher). Marketing leadership controls access to workshops. Genius forecasting modalities apply to the overall process.

The program is a multi-level urban research platform. The program is not optimally shared within the business unit and corporation.

8.5.4) Consequences Theme:
Workshops as temporary networking platforms, not resulting in communities

Workshops offer both the business unit and stakeholders a platform to mutually switch into networks. The business unit accesses exclusive professional circles. Invitation to join the program is perceived as a status marker in professional terms. Program extensions (e.g., awards) are motivating for stakeholders. Workshops offer a key moment of informal interaction and knowledge exchange among professional stakeholders. The program does not result in a specific professional community, especially in terms of social media perspective.

The program exists for 20 years and is internally recognized. Extensions of the program (e.g., awards) are owned by the business unit and represent a branding opportunity. Further networking extensions might result in the program being perceived as a sub-brand in itself. The program triggers an intuitive mindset possibly resulting in informal and non-systematic monitoring practices in regular project work. Trend thematic clusters (Decluttering) as identified in the program and observed in any of its ancillary spin off, lead product development into innovative solutions (Freestreet).

CONCLUSIVE NOTE

Starting this Conclusive Note from the helicopter view of city.people.light processes in general, managerial ownership is clearly identified with Philips Lighting strategic marketing and product management, within the business unit, while the 1996 Philips Design-owned program and its related assets are referred as starting points of the managerial processes leading to the 2006 and 2011-2013 workshops and programs. Administratively, there were separate contract protocols, both at internal Philips Lighting/Philips Design (2007) as well as consulting Master Service Agreements (2011-2013) regulating the relationship between the workshop facilitators (including the researcher of this PhD) and the commissioner (Philips Lighting). Yet these extant documents or the details of these administrative relationships were never mentioned during the expert interviews. In this light, it appears peculiar that city.people.light could extend its longevity for 20 years within Philips, since an administrative and managerial

interpretation would lead to isolate each installment (1996, 2006, 2011-2013) where the approach was leveraged as a separate and self-contained operational unit. A practical hiatus might be identified here, before the corporate orientation to atomize activities into controllable and falsifiable ISO quality system managed projects, and the nature of city.people.light research, possibly leading to a constant reiteration and perpetual mobility of events in time and space, towards saturation and publication of findings that remain, once again, by apparent nature of the program itself temporary and open. A main point of uniqueness of the program as a whole is perceived as its acquired status of *brand theme,* also extending into the totally independent, yet together identified "city.people.light award", a proprietary yearly event based on independent voting of city lighting projects, in collaboration with LUCI Association, the worldwide network of cities that identified lighting as a strategic asset. Between 2003 and 2012 the city.people.light award presented 217 entries, granting a number of professionally voted and publicly voted awards, including overall edition winners like Cologne (2005), Vienna (2006), Seoul (2008), Luzern (2010), Lyon (2012). Although the two streams, the "city.people.light research workshops and books" and the "city.people.light awards" are not interdependent at any level, the combined impact of the two initiatives results in a simplified discourse at strategic marketing and PR levels. Philips position themselves as facilitators, promotors and innovators of an innovative quality of urban lighting, with a strong eye to the contemporary leaders (awards) as well as a structural future orientation (workshops and books). Besides the city.people.light award, that since 2003 represents an institutionalized yearly moment of networking and promotion in cooperation with LUCI, a number of steps and actions were taken in 2007 and 2014, and afterwards, in order to leverage the assets generated by the city.people.light 2007 and *"Create the Livable City"* 2014 processes, respectively. For example, the 2007 book was launched in Rotterdam, with a major Philips own event over two days, with 500 guests in attendance, and the 2014 book was launched with a Philips branded presentation on invitation only, during the Light & Building Fair in Frankfurt, in April 2014. Both events marked the opportunity to invite and to re-connect to prospective customers, existing clients and a number of relevant stakeholders, including contributors to the book (2007), who contributed by partaking in a panel session moderated by the editor, on "people" and "planet" challenges to lighting innovation design. Both events might be regarded as natural extensions of the workshop format, dialogs and networking barter.

As established since 1996, design workshops might be seen as the moments when opinions by thought leaders, as captured in the qualitative research, would be activated in the innovation process for conversion into triggers for concepts and sketches. The city.people.light workshop was generally not perceived as a network-making event, it was instead described as an opportunity to tap into existing networks, possibly being described as a "switcher" platform across networks. Workshops could be seen as a strong token of barter to guarantee Philips Lighting the access to inner circles of the professional field, namely because of the knowledge transmitted in lectures as well as received and contributed in the design active phases of the workshop. The engagement with multiple stakeholders remained a programming element of influence within Philips, as proven by the several copycat initiatives where this approach, or elements thereof, were adopted or its natural commercial follow ups (e.g., Strijp-S lighting master plan). Main manifestations of the legacy of city.people.light were represented by a number of projects addressing retail, office and other business domains of relevance for Philips Lighting. With adapted methodologies rooted in city.people.light and with mixed outcome, mostly never reaching the same status in terms of innovation output and profiling power, plus the case of the Polish program, "Architects of Light", as already

documented above, and the indirect case of the Strijp-S masterplan directed by Lorna Goulden, as extensively referred to in Chapter 6. In these spin offs, "Design Thinking" as an organizing principle was confirmed as the driving force behind the process, with technology and marketing being ancillary instead. Once again, another triggering point for the hypothesis that it might be possible to perform design processes even not belonging to a "Design" organization.

A reference tool of the workshop process was identified in the urban futures matrix, both as repository of socio-cultural information as well as socializing factor across the individual stakeholders, to the point of being referenced as a binding factor within a hypothetical city.people.light community. Within the multipurpose context, a specific element of process continuity was required, unifying the prior research phase (qualitative findings) with the facilitation of the workshop (design direction). Such an element of continuity was identified indeed in the urban futures matrix. The matrix was also indicated as a reference element for a possible para-scientific endurance or at least comparability across workshops, as opposite to the "genius forecasting" modality of workshop process management, based on the personal interaction and individual charisma of the facilitators.

After wrapping up a number of key considerations on generic city.people.light processes, switching to the specific constructivist interpretation of workshop processes across PhD interviews, in terms of coding procedures, the following axial Themes around the Key Generative Category (workshop) selective codes can be extracted as conclusions for this Chapter 8:

Causal Theme:
Workshops as CRM-focused opportunities for dialog and networking

The practical goal of the program is converging towards a dialog with stakeholders, excluding direct sales, where workshop mock-ups are conversation triggers. The workshops are initiated by marketing as a brand exposure opportunity for CRM ("door opener"), with participant invitation depending on country sales team selection. Invitation and inclusion are determined by role and responsibilities of decision makers, architects and urban lighting related professionals. The program is intended as extended in time. Country market sales teams determine workshop attendance, based on their insights in local networks. Workshops are engaging and entertaining. There is no specific follow up designed after workshops.

Strategies Theme:
Design practices and the matrix as multidisciplinary integrators

Workshop participants contribute to and lead concept design, based on teamwork dynamics. The program is designed as outside-in and from one edition to the next one it opens itself to higher involvement by inviting increasingly applicative professional stakeholders. Workshops include the synthesis of distinctive expert interviews with thought leaders, as executed before. The program enables stakeholders to engage in personal reflexivity on the lighting design professional practice. From visioning to prototyping, the socio-cultural matrix is the para-scientific, analytical, clear starting point of a hands-on lighting design workshop. The matrix transfers knowledge to workshop participants, while working as a knowledge management reference for the business unit. The matrix potentially enables the creation of a company database of potential R&D,

while offering a monitoring opportunity ("sanity check"). The matrix can generate new tools to address specific project challenges, when adopted. During workshops, sketching enables the best future visioning and idea generation, as they support concept creation beyond current feasibility. Sketches need to be managed during and after workshop in view of future publication, possibly involving senior designers as ancillary illustrators. Workshops are designed as knowledge exchanging events, where 50% of the time is invested in providing stakeholders with valuable research and 50% of the time is invested in earning back value from stakeholders.

Context Theme:
Workshop as precisely structured and targeted events, with clear KPI's

Workshops are formally structured, visually documented and driven by theoretical and trend analysis constituencies of the program. The purpose of the program goes beyond thought leadership, including relationship management and product innovation. Benefits of the program are appreciated at the level of brand perception and CRM profiling. Workshops are challenged in terms of their commercial value (conversion to sales). It is doubtful that NPS technically offers the possibility to evaluate people's performance and the program in general. Feedback is provided by sales organizations. Workshops are focused on urban planning for professional stakeholders. A wider audience, e.g. citizens, would negatively affect the process and individually feel alienated. Citizens might be instead consulted at different times. Workshops are knowledge exchange intensive experience, with a maximum degree of stakeholder contribution, which can be perceived as co-creation. The business unit provides a solid framework based on pre-existing knowledge. The theoretical constituencies of the workshops might be increased in time and simplified in format, although knowledge sharing and learning opportunities are recognized as "accessible" internally. The educational, academic and research constituencies of the program represent unique value, perhaps beyond the understanding of the business unit. Workshops leverage a flexible, scalable format, based on prior expert interviews, to intuitively deliver insights and concepts, which will be converted for 1% - 5% into product solutions and CRM relationships. Such conversion from future visions into company R&D and technology development requires additional work beyond the workshop as such. Workshops offer content (barter) and trigger new relationships (switcher). Marketing leadership controls access to workshops. Genius forecasting modalities apply to the overall process.

Consequences Theme:
Workshops as temporary networking platforms, not resulting in communities

Workshops offer both the business unit and stakeholders a platform to mutually switch into networks. The business unit accesses exclusive professional circles. Invitation to join the program is perceived as a status marker in professional terms. Program extensions (e.g., awards) are motivating for stakeholders. Workshops offer a key moment of informal interaction and knowledge exchange among professional stakeholders. The program does not result in a specific professional community, especially in terms of social media perspective.

"Design" is confirmed as central by the strategic theming of codes. The high density and word count of each Selective Code might be interpreted as a symptom of the key focus assigned by interviewed experts to "workshops" as interview topic, in terms of frequency of citations in their statements. It might be once again noticed how, in relationship to the

Theme: *"Strategies: Design practices and the matrix as multidisciplinary integrators"*, "Design" emerges again as a key strategy in conceptualizing the city.people.light phenomenon. Compared to Chapter 6 (Context Theme) and Chapter 7 (Strategies Theme), where the same lines were generated, in Chapter 8 a different verbal structure highlights a different role for "Design". This time "Design" plays a workshop governance related function. It might be arguable that workshop management or the urban futures matrix are specifically "design tools". In 1996 a qualitative research and foresight firm, FutureConceptLab, the same that consulted Philips for *"Vision of the Future"*, conceived such tool. Its subsequent adoption by Philips Design in 1996–2006 was clear but it did not secure the presence of Philips Design within city.people.light next program editions, beyond 2007. In general terms, one might more convincingly speak of "design practices" with reference to "sketching", which was identified as a central practice in city.people.light workshops.

In parallel with the structure given to the conclusions of Chapter 7 once again as based on a mix of findings and "insider" insights of the PhD researcher, who also acted as facilitator and director of all the workshops that represent the "research object" within this PhD study, the two workshop cycles expressed a number of key similarities, when compared:

1) both in 2006 and in 2011-2013, the contribution by the PhD researcher, also in terms of general research direction, was seen as a necessary element of continuity. Firstly, because his employment with Philips Design as Director, being appointed by the service unit on the program, then because of his proficiency and status on the overall approach, as recorded by Philips Lighting in the context of the 2006-2007 relationship;

2) both in 2006 as well in 2011-2013, the PhD researcher was assigned multiple tasks in the city.people.light program, covering the thought leader interviews, the workshop facilitation and the editorial direction as documented in Chapter 7;

3) both in 2006 as well in 2011-2013, the PhD researcher exercised his roles, including the workshop facilitation, in strict synergy with the Philips Lighting management, adapting when necessary to tactic circumstances beyond any rigid reference to the workshop blueprint;

4) both in 2006 as well in 2011-2013, there was a general understanding foreshadowing the fact that a book, as a final publication, would be conceived on the basis of workshop visual materials. However, no specific editorial format was used as reference to structure the workshop process, beyond the understanding of earlier editions of the program.

The fact that "Design" in the analysis of workshops is in the same position as in Chapter 7 further clarifies the common nature of such role, as, once again, "Design" is an approach functional to strategically achieve a concrete objective, the execution of workshop procedures according to KPIs. "Book" and "Workshop" are after all but the two halves of one Central Phenomenon, where "Design" is key. The coding procedures empirically confirmed this hypothesis, at the basis of the Key Research Question of this PhD study. Discrepancies and differences existed in formal and practical fashion across the two series of workshops, with a general overview covering the following points:

1) in 2006, the business unit engaged with the service unit on the basis of complementarity of competences. Whereas in 2010-2011 the business unit matured the understanding of being autonomous in managing all city.people.light processes and therefore to be in the position not to involve the service unit;

2) in 2006, the process, and its workshop facilitation part in particular, were all owned and executed by internal corporate staff, be it service unit or business unit allocated. While since 2011 a relevant number of mission-critical external consultants were involved;

3) in 2006, the process, and its workshop constituency, were monolithically executed on a global basis, as "one program", where since 2011 workshops were executed with a modular approach, enabling the inclusion in the final outcome of *"Create the Livable City"* of one Polish national workshop, originally belonging to the "Architects of Light" country series;

4) in 2006, only Philips Lighting central marketing and product innovation were directly involved in the program, whereas since 2011 country markerteers were always present and involved at various stages of the workshops, in a progressive de-centralization progress, that multiplied feedback loops from the countries and the markets to the business unit.

Workshops might be seen as the first and most intense opportunity to access those "feedback loops" that enable delivery of products in roadmaps, therefore the knowledge exchange opportunity represented by these events was not underestimated. In the course of the decades and across the various editions of the program one might observe a formal opening up of the creative process in terms of participatory contribution, from a) involvement of stakeholders through interviews only in an outsourced separate qualitative research sub-process (1996), to b) direct stakeholder contribution through sketches (2006) and through mock up's (2011-2013). As of 2006, workshop participants took the role of designers themselves, with the city.people.light team acting as enablers and facilitators. In parallel, a progressive involvement of more and more junior stakeholders tasked with concept generation was observed, shifting from internal Philips designers only (1996), to senior stakeholders delivering sketches only (2006), to senior and middleweight stakeholders delivering concepts, sketches and mock up prototypes (2011-2013). This apparent generational shift was enabled by both a capillary distribution of events and workshop locations, as well as by the scalability of the format itself.

As conclusion of the specific analysis of "workshop" process, it might be valuable to recap a number of reflections about the city.people.light processes in more general perspective, as the bigger picture where the "research object" is positioned as a fine detail. This chapter was introduced in Chapter 5 by an elaborate Case Study reconstruction of the program genesis at a specific moment in time and how in such context workshop processes were determined by multiple actions of more involved stakeholders, both decision makers and influencers, based on a review performed from a critical realist viewpoint. In Chapter 4, the city.people.light process was foreshadowed as "multipurpose", with Public Relations, CRM/sales and strategic marketing as key references, although it is reiterated that no direct sales are allowed during city.people.light events. Networking and dialog with stakeholders are the focus of such a multipurpose approach, with discourses articulating new visions on the value of lighting

and design, not without playfulness. Conversion of functional knowledge into product management roadmap is once again regarded as relevant, with successful commercial catalogue lines like FreeStreet and LumiMotion repeatedly indicated as reference examples emerged from feedback loops, from city.people.light participatory venues to business unit headquarters, through workshop processes that were conceived, devised and at least at some point, owned, by Philips Design.

SECTION III
EMPIRICAL ANALYSIS

EMPIRICAL SECTION:
CROSS-AXIAL CONFRONTATION OF EMPIRICAL FINDINGS

CODING EDITORIAL SEQUENCE
Empirical Data: 13 Expert Interviews (Purposive Sampling) based on Item list

Sixth Step: Cross-Axial Confrontation, generating ***Design-referenced Themes, Transitional Propositions*** (Collateral, Ancillary, Primary) cross-referencing Axial Themes from Three Streams. Merging Three Streams into One (Design).

GENERAL EMPIRICAL CONCLUSIONS

As anticipated in the methodological introduction to this Section III, Cross-Axial Confrontation of primary research coded findings from Chapters 6, 7, 8 will generate a number of intermediate transitional constructs, with the equivalent function as "posits" in futures research: "Transitional Propositions". This will be pursued by leveraging Selective Codes and, when appropriate, referring back to specific Generative Propositions. The purpose is not to provide ultimate conclusions yet, as this will be the specific task of Chapter 9. In Chapter 9 only, empirical findings will be filtered through Sensitizing Concepts, referenced back to bibliographic sources and then rationalized into a Grounded Theory Cluster answering the Key Research Question. The purpose here is instead to firstly relate, cross-reference and merge the three diverse streams (History/Context, Product, Process) with each other. Their analysis was separately performed and presented in different Chapters 6, 7, 8, all of empirical nature but specifically purposed at individual level. The Cross-Axial Confrontation will re-unite and unify coding insights and empirical findings around the closest axial category with respect to the Central Phenomenon and the Key Research Question. This was designed in order to reach a point of synthesis that might enable the observation of the Central Phenomenon in its holistic coherence.

In synthesis, the goal of this confrontation is to edit partial empirical findings (in their intermediate final form of Selective Codes), generating new, unified "Transitional Propositions", to be textually styled for the purpose of further generative (and editorial) processing. Hence, epistemologically different than the Generative Propositions finalized in Chapters 6, 7, 8 because the latter were divided at each time, with reference to either History/Context or Product or Process. Whereas "Transitional Propositions" represent unified assets where History/Context as background, and Product / Book and Process / Workshop axially converge in each statement, on the way to overall conclusions. From an editorial viewpoint, the "Transitional Propositions", as developed below, will be identified with progressive index numbers starting at "9…", as the further development will follow in Chapter 9, "Conclusions". Although not editorially ideal or optimal, such solution will guarantee best differentiation from the coded findings and the Generative Propositions of Chapters 6, 7, 8, preventing any possible confusion by means of neutral numeric tagging.

Cross-Axial Confrontation: Coding Procedure

It is worthwhile to reiterate that the below elaborations represent editorial processing of empirically based materials, that were content-wise managed with the purpose to respect their semiotic status of research data. This Cross-Axial Confrontation will wrap up the three empirical chapters above, by cross-referencing their findings. The procedure consists in disentangling Selective Coding Storylines as elaborated in each chapter from their analytical specificity. "Themes" will assume a central role as end constructs of the Axial Coding at each chapter. The confrontation will sequentially restart from the history and context of city.people.light, according to the extreme synthesis of Selective Codes from Chapter 6, edited to address the Key Axial Category "Design" (by operationally selecting "Design" as a keyword in each Selective Coding Storyline textual fragment where it is featured). Synthesis will not be a priority as analytical texture was identified as worth preserving by re-presenting the entire textual materials already included in Selective Codes.

From an operational pragmatic viewpoint, semantic analysis entailed that every sentence with the word: "design" or "designer" in Selective Codes was identified, isolated and edited into the new propositions. Propositions will be qualified and itemized according to three different taxonomic references:

- collateral: fragments from Selective Codes that emerged from "History and Context". Therefore investigated for background purposes only and not directly representing the Central Phenomenon, herewith reported for documental reasons;
- ancillary: fragments from Selective Codes that emerged from "Product" or "Process", however not directly connected to the Key Axial Categories, hence possibly weaker in their articulation or representation of the Central Phenomenon;
- primary: fragments from Selective Codes that emerged from the Key Axial Categories or earlier Axial Coding, therefore representing a direct connection to the empirical findings articulating the analysis of the Central Phenomenon.

This classification above will however not directly impact the preliminary semantic analysis below. The differentiation among collateral, ancillary or primary propositions will be instead leveraged from the analytical phase context of the Sensitizing Concepts and the dissection thereof, and then in the procedures leading to final conclusions with the purpose to offer a principle to assess relevance. Just like Sensitizing Concepts "mirrored" theoretical tensions in their textual constituencies, "Transitional Propositions" will mirror the above "empirical fragments". In switching the descriptive vocabulary, a distinction aims at being cast with transparent clarity:

- empirical "fragments" from coded primary research required any processing and editing to respect their intrinsic coherence as research data, with the focus on formal integrity;

- "Transitional Propositions" are intermediate constructs, equivalent to "posits", aimed at enabling grounded theory development, therefore the same verbal structures will be subjected to any appropriate processing, except editorial optimization.

Although there might appear to be repetition of the same empirical materials it was a precise research choice to present all analytical transition passages below in their completeness. This was enacted for the purpose of transparently reporting and documenting how the grounded theoretical conclusions were developed, in all details. Furthermore, any misunderstanding should be prevented, possibly leading to the incorrect assumption that statements below represent a partial or even totalizing view by the PhD researcher. Whereas here it is, still, the empirically processed "voice" of interviewed experts that expresses their educated opinions in the format of intermediate textual materials, towards theoretical development in the next chapter.

Cross-Axial Confrontation: thematic clustering and analysis

CROSS-AXIAL DESCRIPTION HISTORY AND CONTEXT (SUMMARY)

Themes:

Design Leadership, Marketing Focus
Design as B-to-B knowledge manager and network switcher
Design as intellectual partner in a multidisciplinary platform
Design as visual connector, creating an architect-focused brand theme

History and Context: Causal Conditions Theme:
Design Leadership, Marketing Focus

Design takes the lead in creating insights by processing expert interviews, and then presenting such insights visually, in order to challenge the current status quo of High Tech.

History and Context: Strategies Theme:
Design as B-to-B knowledge manager and network switcher

Design generates a program with hybrid elements from R&D (research) and strategic marketing, progressively opening it up in its second edition to external stakeholders. Design creates a thought leadership foresight framework to successfully study, anticipate and leverage a deep understanding of urban change. Involving both senior and younger architects within major architectural firms, in order to envision innovation solutions that will happen over time. Student involvement is not part of the approach. The program is designed for business-to-business purposes. Therefore, it does not include any citizen, student or open participation. Although such participation might be desirable, interactions with business stakeholders represent the core value of the program.

History and Context: Context Theme:
Design as intellectual partner in a multidisciplinary platform

The program is based on High Design principles. High Design elevates "design" to a higher master planning role than product design, integrating technology, sociology and other knowledge in order to generate insights and experience flows. Spin offs based on the methodology are designed and executed, according to diverse interpretations of the program blueprint. The value of "design" within the program lies in its intellectual capital (e.g., relating to thought leading

interviewees, steering the process beyond immediate applications, consistently integrating workflows within existing tools to achieve continuity with the past).

History and Context: Consequences Theme:
Design as visual connector, creating an architect-focused *brand theme*

Design enables an experience of "virtual co-creation" by means of a process that connects insights generated beforehand from expert interviews to inspiring multimedia visualizations.

The narrative flows above offer a synthesis of the shared perception of the genesis of city.people.light, with "Design" both as an organizational unit (Philips Design) as well as an intellectual and professional multidisciplinary practice acting in a proactive fashion and taking ownership of the value generation processes. The role of "Design" in generating city.people.light urban futures is specifically described as follows:

- taking the lead in processing qualitative data into insights
- taking the lead in visualizing such insights
- creating an integrating knowledge management framework
- facilitating an understanding of deep urban change
- generating intellectual capital.

The exercise of the prerogatives of High Design is fulfilled by the integration of High Tech, social sciences competences and other knowledge constituencies. The thematic analysis highlights a marketing focus, however leadership, knowledge management, visual creation and brand theming are all connected to "Design", playing the central role of intellectual partner in a multidisciplinary context. If this PhD study was only geared to the historical understanding of the foundations of city.people.light, one might conclude that indeed city.people.light was originally created and contextually extended as a "Design" process of futures research for knowledge creation, being initiated and owned by Philips Design. However, a next step requires looking beyond 1996, by clustering the "product" and "process" dimensions of the Central Phenomenon according to the thematic congruence of causal conditions, strategies, context and consequences. This step will result in the possibility to specifically describe the Central Phenomenon in a more granular way, beyond the constraints of history and context, focusing now on "research objects", meaning city.people.light "books" (structural moments of communication) and "workshops" (dynamic practices of creation), referred to urban futures scenarios. This time, Selective Codes will be presented in their entirety, with the objective to render such "objects" in their most detailed form.

CROSS-AXIAL DESCRIPTION CAUSAL CONDITIONS

Themes:

Product: Efficiency and Effectiveness
Process: Workshops as CRM-focused opportunities for dialog and networking

Book: Causal Condition Theme:
Efficiency and Effectiveness

Budget requirements for a program that includes the book, the interviews and logistic costs for a launch event are optimal, when considering the program-derived benefits. *Strategic marketing and product management take the initiative to centrally create, (re)generate and steer the program, on the basis of existing assets when available, as their key owners.*

Workshop Causal Conditions Theme:
Workshops as CRM-focused opportunities for dialog and networking

The practical goal of the program is converging towards a dialog with stakeholders, excluding direct sales, where workshop mock-ups are conversation triggers. The workshops are initiated by marketing as a brand exposure opportunity for CRM ("door opener"), with participant invitation depending on country sales team selection. Invitation and inclusion are determined by role and responsibilities of decision makers, architects and urban lighting related professionals. The program is intended as extended in time. Country market sales teams determine workshop attendance, based on their insights in local networks. Workshops are engaging and entertaining. There is no specific follow up designed after workshops. *The program is focused on engaging with multiple stakeholders and activating feedback loops. The approach behind the program is more important than its actual content. The budget allocation to enable the program gets challenged from one edition to the next, in spite of the repetitive nature of the program.*

In terms of origin of city.people.light, it clearly emerges from the Cross-Axial Confrontation of these two complementary Selective Codes, how the "marketing focus" that was identified in terms of history and context, organizationally translated into a full budget ownership and ownership by Philips Lighting strategic marketing. While "ownership" already appeared attributed to "marketing" in the ancillary part of the Selective Code in Chapter 6, here not discussed however available for consultation, now the empirical conclusions highlight how "marketing" as an organizational entity determines key decision-making and framing of city.people.light, including:

- program creation and program steering
- setting the practical goal: dialog with stakeholders, excluding sales
- setting the selection of participants in terms of criteria and actions
- leveraging past editions and practices as assets for new editions
- defend the budget allocation from edition to edition, when challenged.

The above short list is organizationally neutral and represents a set of corporate and business tasks that might be performed either by a marketing department or by a design service unit, or any other corporate department, depending on organizational design, processes and specific ownership thereof. What appears noticeable, in the case of city.people.light, is how such a "neutral" short list was firstly ambiguous in its ownership (1996), to be then progressively shift (from 2006) to structural full ownership by the business unit (operationally achieved, from 2011 onwards). It might, therefore, be possible to identify a shift in the power relationship between the two organizational units within the corporate enterprise, most notably highlighted by the total absence of the "Design" keyword. The thematic analysis itself highlights efficiency, effectiveness, dialog and CRM, which can be easily described as constituencies of the marketing "discourse". A first conclusion might therefore entail that "Design" as an organizational entity (therefore Philips Design, in this case) lost its edge as an initiator and ultimate owner of

city.people.light. Or perhaps better articulated, it might be concluded that in 1996 the front stage was once occupied by “Design” (as projection of the global service unit) with the silent support of marketing. Whereas, in time, Strategic Marketing (and the business unit) took a more and more visibly leading role, up to full ownership.

CROSS-AXIAL DESCRIPTION AXIAL CODING STRATEGIES

Themes:

Product: Design as intellectual partner in a multidisciplinary platform
Process: Design practices and the matrix as multidisciplinary integrators

Book Strategies Theme:
Design as intellectual partner in a multidisciplinary platform

Design provides support in managing the content of the book, in order to selectively convert part of it into product propositions. In the fast paced sector of lighting design, the book could be an everyday reference. The book is designed as a solid reference at a higher intellectual level, incorporating multi-faceted insights from thought leaders’ interviews (outside-in approach) with a critical mass of content generated in workshops. The book is distributed in limited quantities as a precise marketing strategy. The book is validated over time. *The program does not aim at educating stakeholders. The aim is, instead, intended to show them possibilities in lighting design. The program is designed with the confidence to generate at least two innovative product propositions as part of the corporate business unit roadmap. This is translated into a specific KPI. Sketches are produced in a collective context with facilitation and are mission-critical to gain insights, both in the vision of individual designers as well as in future developments. Sketches represent the barter value for the corporate business unit.*

Workshop Strategies Theme:
Design practices and the matrix as multidisciplinary integrators

Workshop participants contribute to and lead concept design, based on teamwork dynamics. The program is designed as outside-in and from one edition to the next one. It opens itself to higher involvement by inviting increasingly applicative professional stakeholders. Workshops include the synthesis of distinctive expert interviews with thought leaders, as executed before. The program enables stakeholders to engage in personal reflexivity on the lighting design professional practice. From visioning to prototyping, the socio-cultural matrix is the para-scientific, analytical, clear starting point of a hands-on lighting design workshop. The matrix transfers knowledge to workshop participants, while working as a knowledge management reference for the business unit. The matrix potentially enables the creation of a company database of potential R&D, while offering a monitoring opportunity (“sanity check”). The matrix can generate new tools to address specific project challenges, when adopted. During workshops, sketching enables the best future visioning and idea generation, as they support concept creation beyond current feasibility. Sketches need to be managed during and after a workshop in view of future publication, possibly involving senior designers as ancillary illustrators. Workshops are designed as knowledge exchanging events, where 50% of the time is invested in providing stakeholders with valuable

research and 50% of the time is invested in earning back value from stakeholders. *Design Thinking is at the basis of the program, which is structured according to a future-oriented, multidisciplinary, playful design process. The program fails to rise to company process status, being managed as an individual project. The program promotes the professional value of lighting design in general. The connections between new products and program remain unclear to external stakeholders. The program is open to include radical wild card hypothesis, including the future elimination of artificial lighting and its implications. The program is not technology driven and is not designed for an engineering mindset. Sales team members and internal design team members of the business unit join the program for educational and observation purposes only, delivering enabling support to stakeholders but without any attempt to perform direct sales. The program can be identified as a "design program", enabling deeper reflection on the lighting design professional practice than fast paced project delivery.*

Shifting to content analysis, the strategies adopted by city.people.light represent the heart of its process and delivery, as conditions, context and effects are intrinsically the result of adopted strategies. One of them is "integration". It is possible to identify the matrix, the sketches and concept design as key moments of an integrative process, led by "Design". In particular, it is possible to isolate a number of key constituencies within the Selective Code above:

- the book is a designed object, generated from workshop content
- "design" is an integrator in an outside-in approach
- workshops focus on stakeholder-driven concept design
- the matrix plays a central role
- sketches play a central role

In terms of strategic approach, the centrality of "Design" is clearly assessed and, in a hypothetical historical analysis, fully affirmed. With comparison to the above "Casual Conditions" cluster, in continuity with the same contextual Theme within the historical analysis, namely: *"Design as intellectual partner in a multidisciplinary platform"*. Being reinforced by semantic repetition, this Theme acquires a stronger value in terms of description of the role that "Design" actually plays, as perceived and appreciated contribution to city.people.light. It therefore emerges that city.people.light is a process based on a design-led strategy, expressed in structural moments of visualization and integration (book, matrix, sketches) within a co-creative discourse regulated and facilitated (in workshops) with clearly identified and repeatable components.

CROSS-AXIAL DESCRIPTION AXIAL CODING CONTEXT

Themes:

Product: Foresight Validity, Continuity in Time
Process: Workshop as precisely structured and targeted events, with clear KPI's

Book: Context Theme: Foresight Validity, Continuity in Time

The book and its foresight content have a validity of 5–10 years ahead in time from the moment of conception and publication. At the time of revising the program the last edition of the book with previous content is a reference and an asset. *The program can be initiated or steered without a clear vision of its final outcome*

at the moment of its conception. A relevant professional community for the program might include architects, landscape architects and interior designers covering the expertise required in the "built environment" professional landscape. As lighting is a public issue, the program might include wider audiences and additional stakeholders, beyond professional communities of practice. The program has the ambition to demonstrate how lighting might trigger urban storylines. The program itself has a general storyline: "Better city for people". The visual end-result of workshop concepts is determined and driven by mock-ups realized with existing technology. The program delivers concepts that represent visions of further future (Horizon 3). Where contemporary technology is not sufficient for conversion into products. Existing technology and tools are not sufficient to convert workshop mock-ups into feasible products. The program is offered as a valuable tool. The monitoring and reflexive constituencies are an important part of the program. The matrix provides a structure that can be revived over time by means of filtering new insights. The resulting visions can be valid for up to 10 years. During the interview phase and the workshop execution phase the matrix structures analytical, semi-academic, outside-in knowledge that is critical to the program, while at the same time enabling tracking and monitoring the process.

Context Theme:
Workshop as precisely structured and targeted events, with clear KPI's

Workshops are formally structured, visually documented and driven by theoretical and trend analysis constituencies of the program. The purpose of the program goes beyond thought leadership, including relationship management and product innovation. Benefits of the program are appreciated at the level of brand perception and CRM profiling. Workshops are challenged in terms of their commercial value (conversion to sales). It is doubtful that NPS technically offers the possibility to evaluate people's performance and the program in general. Feedback is provided by sales organizations. Workshops are focused on urban planning for professional stakeholders. A wider audience, e.g. citizens, would negatively affect the process and individually feel alienated. Citizens might be instead consulted at different times. Workshops are knowledge exchange intensive experiences, with a maximum degree of stakeholder contribution, which can be perceived as co-creation. The business unit provides a solid framework based on pre-existing knowledge. The theoretical constituencies of the workshops might be increased in time and simplified in format, although knowledge sharing and learning opportunities are recognized as "accessible" internally. The educational, academic and research constituencies of the program represent unique value, perhaps beyond the understanding of the business unit. Workshops leverage a flexible, scalable format based on prior expert interviews, to intuitively deliver insights and concepts, which will be converted for 1% - 5% into product solutions and CRM relationships. Such conversion from future visions into company R&D and technology development requires additional work beyond the workshop as such. Workshops offer content (barter) and trigger new relationships (switcher). Marketing leadership controls access to workshops. Genius forecasting modalities apply to the overall process. *The program is a multi-level urban research platform. The program is not optimally shared within the business unit and corporation.*

The Selective Codes above indicate a number of key issues, sometimes repeated from earlier codes (e.g. switcher role of the workshop platform). In general lines it appears

that the context of city.people.light is rather vague but demanding in terms of Key Performance Indicators, ancillary benefits (mostly related to CRM and sales opportunities) and format mix (e.g. the role played by the theoretical modules in workshops). It is possible to distill a few key points:

- books are validated (5/10 years scope) and referenced back at new editions
- workshops are multipurpose (CRM, brand theming, roadmap conversion)
- generated value is a challenge in terms of assessment
- the format is scalable and flexible
- roadmap conversion is expected in ratio of 1% to 5% concepts

The themes effectively paint a two-sided picture, one of a very positivist/engineering context, with structures, targets, precision, and one of appraised value, in terms of continuity through the decades. The general outcome is that city.people.light exists in a highly complex and competitive environment. In such context, multiple and sometimes even contradicting directions and demands determine a performance framework that appears both challenging and dynamic. Under these circumstances the fact that city.people.light "flagship" structured communication product, the book, is considered valid over the timeframe that futures research identified for its foresight content validity, might be considered as a proof of endurance in itself.

CROSS-AXIAL DESCRIPTION AXIAL CODING CONSEQUENCES

Themes:

Internal and External Leadership
Workshops as temporary networking platforms, not resulting in communities

Book: Consequences Theme: Internal and External Leadership

The book is distributed and received within the business unit as an opportunity to improve corporate profiling and customer relationships. The book helps internal business unit audiences to reflect and mature their positions, however this happens on the basis of intuition only. The book is a source of imitation by competitors, who use it as catalogue reference to copy concepts and develop them themselves. This is seen as a proof of leadership and resilience of the approach, which remains unique to the point of being perceived as a potential sub-brand. *The program delivers insights and trends, to be leveraged by segment marketing to generate future propositions. The program offers a great* brand theme*, to be leveraged both inside and outside of the business unit and of the corporation.*

Consequences Theme:
Workshops as temporary networking platforms, not resulting in communities

Workshops offer both the business unit and stakeholders a platform to mutually switch into networks. The business unit accesses exclusive professional circles. Invitation to join the program is perceived as a status marker in professional terms. Program extensions (e.g., awards) are motivating for stakeholders. Workshops offer a key moment of informal interaction and knowledge exchange among professional stakeholders. The program does not result in a specific professional community, especially in terms of social media perspective. *The*

program exists for 20 years and is internally recognized. Extensions of the program (e.g., awards) are owned by the business unit and represent a branding opportunity. Further networking extensions might result in the program being perceived as a sub-brand in itself. The program triggers an intuitive mindset possibly resulting in informal and non-systematic monitoring practices in regular project work. Trend thematic clusters, (Decluttering) as identified in the program and observed in any of its ancillary spin off, lead product development into innovative solutions (Freestreet).

At the level of outcome and benefits delivered and derived from city.people.light, as encapsulated in this "Consequences" constituency, the confrontation cross-referencing of related Selective Codes offers a twofold image. Where, the book as a communication product is once again positively perceived with two important details: a) competition considers it a source of imitation (possibly proving the value of its content) and b) internal deployment takes place on a personal basis, depending on the interest of individuals (possibly hinting to suboptimal strategies for internal leveraging). Networking is a strong value driver of city.people.light, however it does not lead to the formation of any specific "city.people.light" community. Whether this represents a missed chance or a natural consequence of a carefully crafted strategy remains the potential topic of further probing. When an educated attempt is made to isolate key lines in the above Selective Codes this might lead to the following shortlist covering aspects of the coded content that go from the book reception to the outcome of the entire program:

- book is imitated by competition and individually valued within the corporation
- book delivers insights and trends
- workshop are switching moment and express status for invited stakeholders
- invitation to partake is experienced as professional status marker
- program does not generate networks, it enables innovation design.

From a thematic perspective, the overall outcome is positively one of generic, diffused, even diluted leadership, not extended in time as workshops represent only temporary platforms for networking. Although, maximized in the timeframe of events. This means that visibility, memorability and potential conversion of the city.people.light urban futures scenarios into benefits for its business owners exist but, in phases of absence of a workshop program to be constantly reiterated in sufficiently short cycles, chances for such benefits to last will be limited to the time scope of perceived intrinsic validity of the book. As extensively presented and discussed in the empirical materials presented in Chapters 6, 7 and 8 such validity became a standard reference in the context of ancillary projects and derivative company activities. Of which, "Architects of Light", Eindhoven Strijp Lighting Masterplan and product innovation roadmaps were reiterated in their extensive presentation and analysis. In practical terms, on the basis of the above, one might propose the hypothesis that, in the absence of any workshop event re-energizing the temporary networking reach of city.people.light, the latter might cease to work as a corporate and business unit asset within 5 to 10 years, as defined in the above Selective Code.

"Design" as Key Cross-axial Category: semantic analysis of empirical findings

With this paragraph the focus will shift to the transitional phase where a priority will be established on enabling further theoretical development, with reference to the description of the Central Phenomenon. One might say that this paragraph will represent the ideal conclusion of the entire empirical journey of this Section III in the PhD study, at

the same time enabling the first elaboration of empirical materials towards their editorial mirroring into theoretical propositions, as required by Grounded Theory principles. As anticipated above, it should be reiterated that propositions will be itemized according to three different taxonomic references:

- collateral: Selective Coding fragments that emerged from "History and Context", therefore investigated for background purposes only and not directly representing the Central Phenomenon, herewith reported for documental reasons;
- ancillary: Selective Coding fragments that emerged from "Product" or "Process", however not directly connected to the Key Axial Categories, hence possibly weaker in their articulation of the Central Phenomenon;
- primary: Selective Coding fragments that emerged from the Key Axial Categories, therefore representing a direct connection to the empirical findings articulating the analysis of the Central Phenomenon.
-

Content-wise, it might be worth foreshadowing how the outcome will focus on the "role" of design in generating city.people.light urban futures ("what design does"). Namely on the "function" that "Design" played in city.people.light as "knowledge agency" (Grubin) in the postmodern view of High Design (Marzano). This -perhaps unsurprisingly- as the below analysis is based on three entire chapters of empirical data. The analysis will therefore not report on any supposed professional practice of "designers" ("how design works"). A specific "designer moment" might appear absent, as the focus is therefore on the "function" of design in a / as a process, not on the "practice" of "Design". Besides this minimal foreshadowing by anticipation, further reflection on this point will be extensively presented in Chapter 9. Having prevented any possibility of misreading the purpose of the below paragraphs, it is relevant to clarify that by semantically extracting the word "Design/ Designer" (being extending to "High Design" or the verb: "…to design…" where applicable) from the empirical materials it was possible to form the base with which to address the Key Research Question through the intrinsic constituencies of Central Phenomenon.

HISTORY AND CONTEXT

This first semantic analysis pertains the Key Axial categorized materials related to "History and Context", which do not pertain the Central Phenomenon directly, will be all classified as "collateral". All Themes did include "Design" as "Design" was the co-axial reference in the coding procedure, with particular reference to the Theme: *"Design as intellectual partner in a multidisciplinary platform"* that did recur in the "Communication" related Selective Coding.

History and Context: "Causal Conditions Theme: Design Leadership, Marketing Ownership

Design takes the lead in creating insights by processing expert interviews, and then presenting such insights visually, in order to challenge the current status quo of High Tech".

History and Context: "Strategies Theme: Design as B-to-B knowledge manager and network switcher

Design generates a program with hybrid elements from R&D (research) and strategic

marketing, progressively opening it up in its second edition to external stakeholders. Design creates a thought leadership foresight framework to successfully study, anticipate and leverage a deep understanding of urban change, involving both senior and younger architects within major architectural firms, in order to envision innovation solutions that will happen over time. […] The program is designed for business-to-business purposes, therefore it does not include any citizen, student or open participation…"

History and Context: "Context Theme:
Design as intellectual partner in a multidisciplinary platform

The program is based on High Design principles. High Design elevates "design" to a higher master planning role than product design, integrating technology, sociology and other knowledge, in order to generate insights and experience flows. Spin offs based on the methodology are designed and executed, according to diverse interpretations of the program blueprint. The value of "design" within the program lies in its intellectual capital (e.g., relating to thought leading interviewees, steering the process beyond immediate applications, consistently integrating workflows within existing tools to achieve continuity with the past)".

History and Context: "Consequences Theme:
Design as visual connector, creating an architect-focused *brand theme*

Design enables an experience of "virtual co-creation" by means of a process that connects insights generated beforehand from expert interviews, to inspiring multimedia visualizations".

The following is the outcome of Selective Code fragmenting into new editorial aggregations:

History and Context "Design" Transitional Propositions:

9.2.1.1 Collateral: *Design takes the lead in creating insights by processing expert interviews, and then presenting such insights visually, in order to challenge the current status quo of High Tech.*

9.2.1.2 Collateral: *Design generates a program with hybrid elements from R&D (research) and strategic marketing, progressively opening it up in its second edition to external stakeholders.*

9.2.1.3 Collateral: *Design creates a thought leadership foresight framework to successfully study, anticipate and leverage a deep understanding of urban change, involving both senior and younger architects within major architectural firms, in order to envision innovation solutions that will happen over time. […]*

9.2.1.4 Collateral: *The program is designed for business-to-business purposes, therefore it does not include any citizen, student or open participation…*

9.2.1.5 Collateral: *The program is based on High Design principles.*

9.2.1.6 Collateral: *High Design elevates "design" to a higher master planning role than*

product design, integrating technology, sociology and other knowledge, in order to generate insights and experience flows.

9.2.1.7 Collateral: *Spin offs based on the methodology are designed and executed, according to diverse interpretations of the program blueprint.*

9.2.1.8 Collateral: *The value of "design" within the program lies in its intellectual capital (e.g., relating to thought leading interviewees, steering the process beyond immediate applications, consistently integrating workflows within existing tools to achieve continuity with the past).*

9.2.1.9 Collateral: *Design enables an experience of "virtual co-creation" by means of a process that connects insights generated beforehand from expert interviews, to inspiring multimedia visualizations.*

CENTRAL PHENOMENON: STRUCTURAL MOMENT: COMMUNICATION

This second semantic analysis cluster pertains the "Communication" constituency of the Central Phenomenon, specifically the book. Here it is possible to find, again, the Theme *"Design as intellectual partner in a multidisciplinary platform"*, recurring after "History and Context", shifting from the latter "Context" axis to the "Strategies" axis below, as it represents now the "approach" adopted to execute city.people.light. The analysis provides an outcome of three primary codes and four ancillary propositions, confirming the relative lower quantity of empirical materials related to the "Book", when related to the "Process" constituency.

Book:
Strategies Theme: Design as intellectual partner in a multidisciplinary platform

Design provides support in managing the content of the book, in order to selectively convert part of it into product propositions. In the fast paced sector of lighting design, the book could be an everyday reference. The book is designed as a solid reference at a higher intellectual level, incorporating multi-faceted insights from thought leaders' interviews (outside-in approach) with a critical mass of content generated in workshops…

The program does not aim at educating stakeholders. The aim is instead intended to show them possibilities in lighting design. The program is designed with the confidence to generate at least two innovative product propositions as part of the corporate business unit roadmap. This is translated in a specific KPI. Sketches are produced in collective context with facilitation, and are mission-critical to gain insights both in the vision of individual designers as well as in future developments…

Context Theme: Foresight Validity, Continuity in Time

…*A relevant professional community for the program might include architects, landscape architects and interior designers, covering the expertise required in the "built environment" professional landscape...*

The following is the outcome of Selective Codes fragmenting:

Central Phenomenon Product "Design" Transitional Propositions:

9.2.2.1 Primary: Design provides support in managing the content of the book, in order to selectively convert part of it into product propositions.

9.2.2.2 Primary: In the fast paced sector of lighting design, the book could be an everyday reference.

9.2.2.3 Primary: The book is designed as a solid reference at a higher intellectual level, incorporating multi-faceted insights from thought leaders' interviews (outside-in approach) with a critical mass of content generated in workshops…

9.2.2.4 Ancillary: *The program does not aim at educating stakeholders. The aim is instead intended to show them possibilities in lighting design.*

9.2.2.5 Ancillary: *The program is designed with the confidence to generate at least two innovative product propositions as part of the corporate business unit roadmap. This is translated in a specific KPI.*

9.2.2.6 Ancillary: *Sketches are produced in collective context with facilitation, and are mission-critical to gain insights both in the vision of individual designers as well as in future developments.*

9.2.2.7 Ancillary: **…***A relevant professional community for the program might include architects, landscape architects and interior designers, covering the expertise required in the "built environment" professional landscape...*

CENTRAL PHENOMENON: PROCESS MOMENT: CREATION

As a last step in the semantic analysis and re-clustering of Selective Codes, in order to generate Transitional Propositions and support the elaboration of empirically-based conclusions, the "Process" constituency of the Central Phenomenon is analyzed, leading to seven Primary Transitional Propositions and four Ancillary Transitional Propositions confirming the relevance of the "Workshop" related discourses in the context of this PhD. From a thematic perspective, *"Design practices and the matrix as multidisciplinary integrators"* emerges as the only axial Theme pertaining "Design", *while "Workshops as CRM-focused opportunities for dialog and networking"* generated a primary transitional proposition that might be described more as an accidental semantic assonance ("There is no specific follow up designed after workshops") than a substantial finding. It is due reporting even such fragment for sake of integrity and coherence of the procedure.

Causal Conditions Theme:
Workshops as CRM-focused opportunities for dialog and networking

…There is no specific follow up designed after workshops.

Workshop Strategies Theme:
Design practices and the matrix as multidisciplinary integrators

Workshop participants contribute to and lead concept design, based on teamwork dynamics. The program is designed as outside-in and from one edition to the next one, it opens itself to higher involvement by inviting increasingly applicative professional stakeholders…. The program enables stakeholders to engage in personal reflexivity on the lighting design professional practice. From visioning to prototyping, the socio-cultural matrix is the para-scientific, analytical, clear starting point of a hands-on lighting design workshop... Sketches need to be managed during and after workshop in view of future publication, possibly involving senior designers as ancillary illustrators. Workshops are designed as knowledge exchanging events, where 50% of the time is invested in providing stakeholders with valuable research and 50% of the time is invested in earning back value from stakeholders.

Design Thinking is at the basis of the program, which is structured according to a future-oriented, multidisciplinary, playful design process.... The program promotes the professional value of lighting design in general... The program is not technology driven and is not designed for an engineering mindset… The program can be identified as a "design program", enabling deeper reflection on the lighting design professional practice than fast paced project delivery.

The following is the outcome of Selective Codes fragmenting:

Central Phenomenon Process "Design" Transitional Propositions:

9.2.3.1 Primary: …There is no specific follow up designed after workshops.

9.2.3.2 Primary: Workshop participants contribute to and lead concept design, based on teamwork dynamics.

9.2.3.3 Primary: The program is designed as outside-in and from one edition to the next one it opens itself to higher involvement by inviting increasingly applicative professional stakeholders….

9.2.3.4 Primary: The program enables stakeholders to engage in personal reflexivity on the lighting design professional practice.

9.2.3.5 Primary: From visioning to prototyping, the socio-cultural matrix is the para-scientific, analytical, clear starting point of a hands-on lighting design workshop...

9.2.3.6 Primary: Sketches need to be managed during and after workshop in view of future publication, possibly involving senior designers as ancillary illustrators.

9.2.3.7 Primary: Workshops are designed as knowledge exchanging events, where 50% of the time is invested in providing stakeholders with valuable research and 50% of the time is invested in earning back value from stakeholders.

9.2.3.8 Ancillary: *Design Thinking is at the basis of the program, which is structured according to a future-oriented, multidisciplinary, playful design process....*

9.2.3.9 Ancillary: *The program promotes the professional value of lighting design in general...*

9.2.3.10 Ancillary: *The program is not technology driven and is not designed for an engineering mindset…*

9.2.3.11 Ancillary: *The program can be identified as a "design program", enabling deeper reflection on the lighting design professional practice than fast paced project delivery.*

"DESIGN" SEMANTIC: CONCLUSIONS ON EMPIRICAL FINDINGS

Transitional Propositions Clustering

The semantic analysis above generated "Primary, "Ancillary" and "Collateral" fragments across the entire spectrum of "History and Context", "Product" and "Process" constituencies of city.people.light. The below clustering will reunite the three categories of this transitional phase according to their intrinsic relationship with the Central Phenomenon, hence creating a hierarchy of relevance:

9.2.2.1 Primary: Design provides support in managing the content of the book, in order to selectively convert part of it into product propositions.

9.2.2.2 Primary: In the fast paced sector of lighting design, the book could be an everyday reference.

9.2.2.3 Primary: The book is designed as a solid reference at a higher intellectual level, incorporating multi-faceted insights from thought leaders' interviews (outside-in approach) with a critical mass of content generated in workshops…

9.2.3.1 Primary: …There is no specific follow up designed after workshops.

9.2.3.2 Primary: Workshop participants contribute to and lead concept design, based on teamwork dynamics.

9.2.3.3 Primary: The program is designed as outside-in and from one edition to the next one it opens itself to higher involvement by inviting increasingly applicative professional stakeholders….

9.2.3.4 Primary: The program enables stakeholders to engage in personal reflexivity on the lighting design professional practice.

9.2.3.5 Primary: From visioning to prototyping, the socio-cultural matrix is the para-scientific, analytical, clear starting point of a hands-on lighting design workshop...

9.2.3.6 Primary: Sketches need to be managed during and after workshop in view of future publication, possibly involving senior designers as ancillary illustrators.

9.2.3.7 Primary: Workshops are designed as knowledge exchanging events, where 50% of the time is invested in providing stakeholders with valuable research and 50% of the time is invested in earning back value from stakeholders.

In parallel, the following “Ancillary Transitional Propositions” were generated:

9.2.2.4 Ancillary: *The program does not aim at educating stakeholders. The aim is instead intended to show them possibilities in lighting design.*

9.2.2.5 Ancillary: *The program is designed with the confidence to generate at least two innovative product propositions as part of the corporate business unit roadmap. This is translated in a specific KPI.*

9.2.2.6 Ancillary: *Sketches are produced in collective context with facilitation, and are mission-critical to gain insights both in the vision of individual designers as well as in future developments.*

9.2.2.7 Ancillary: **...***A relevant professional community for the program might include architects, landscape architects and interior designers, covering the expertise required in the “built environment” professional landscape...*

9.2.3.8 Ancillary: *Design Thinking is at the basis of the program, which is structured according to a future-oriented, multidisciplinary, playful design process....*

9.2.3.9 Ancillary: *The program promotes the professional value of lighting design in general...*

9.2.3.10 Ancillary: *The program is not technology driven and is not designed for an engineering mindset…*

9.2.3.11 Ancillary: *The program can be identified as a “design program”, enabling deeper reflection on the lighting design professional practice than fast paced project delivery.*

Lastly, all propositions in the series 9.2.1, related to “History and Context”, should be considered as “Collateral”:

9.2.1.1 Collateral: *Design takes the lead in creating insights by processing expert interviews, and then presenting such insights visually, in order to challenge the current status quo of High Tech.*

9.2.1.2 Collateral: *Design generates a program with hybrid elements from R&D (research) and strategic marketing, progressively opening it up in its second edition to external stakeholders.*

9.2.1.3 Collateral: *Design creates a thought leadership foresight framework to successfully study, anticipate and leverage a deep understanding of urban change, involving both senior and younger architects within major architectural firms, in order to envision innovation solutions that will happen over time. […]*

9.2.1.4 Collateral: *The program is designed for business-to-business purposes, therefore it does not include any citizen, student or open participation…*

9.2.1.5 Collateral: *The program is based on High Design principles.*

9.2.1.6 Collateral: *High Design elevates "design" to a higher master planning role than product design, integrating technology, sociology and other knowledge, in order to generate insights and experience flows.*

9.2.1.7 Collateral: *Spin offs based on the methodology are designed and executed, according to diverse interpretations of the program blueprint.*

9.2.1.8 Collateral: *The value of "design" within the program lies in its intellectual capital (e.g., relating to thought leading interviewees, steering the process beyond immediate applications, consistently integrating workflows within existing tools to achieve continuity with the past).*

9.2.1.9 Collateral: *Design enables an experience of "virtual co-creation" by means of a process that connects insights generated beforehand from expert interviews, to inspiring multimedia visualizations.*

Having completed the above transitional operations on Selective Codes the empirical assets were now generated from coded data disentangled from their original narrative and re-assembled into new aggregations centered on the word "Design". To enable performing the necessary "Design" focused analysis as background to the ultimate goal of this Chapter 9, namely the theoretical development. From this point onwards, the extracted fragments will be referred to as "Transitional Propositions", in order to underline the switch in focus, from empirical integrity of existing data to theoretical development of a new concept, grounded in continuity and coherence with research findings.

"DESIGN": TRANSITIONAL ANALYSIS

Design Themes

The semantic "fragmenting" of coded empirical findings above focused on the keywords "Design" and "Designer". In order to prepare the ground for these Conclusions to converge on the Key Research Question, such approach guaranteed the combination of both semantic focus on "Design", as due within this PhD study, as well as PhD research relative neutrality in the choices of how to manage the classificatory steps in taxonomic terms. One might conclude that the above analysis is not based on any abductive mechanism, since its operational rules are objectively defined and strictly followed, in repeatable fashion. The outcome offered two distinct axial Themes:

a) *"Design as intellectual partner in a multidisciplinary platform"*, reiterated twice in different moments and with different functions within the textual materials emerged from empirical analysis, and

b) *"Design practices and the matrix as integrator in a multidisciplinary process".*

From these Themes, it is feasible to formulate a preliminary empirical conclusion related to the roles of design in city.people.light:

- intellectual partner

- practice-oriented
- integrator across disciplines.

The above might be identified as primary descriptors of the Central Phenomenon, namely representing fundamental qualities of the process under examination from the perspective of the role of “Design” in it. The platform itself, city.people.light, always from a “Design” perspective, as the venue where urban futures scenarios are generated, can be then described as follows:

- multidisciplinary
- integrative
- intellectually qualified.

It is also possible to derive, by exclusion, the hypothesis that the “Urban Futures Matrix” is not perceived as a direct constituent of a “design practice” or a design tool. Collateral Themes related to the history and context of the “research objects” constituting the Central Phenomenon cover the entire spectrum of Chapter 6 outcomes; due to the specific analytical axis chosen for that part of the PhD study:

Design Leadership, Marketing Focus
Design as B-to-B knowledge manager and network switcher
Design as intellectual partner in a multidisciplinary platform
Design as visual connector, creating an architect-focused brand theme

The conclusion that in past editions or collateral events, “Design” in city.people.light expressed features or capabilities resulting in the following empirically constructed profile of keywords:

- leadership
- knowledge management
- network switching
- visual synthesis
- brand theming.

The above short list might be identified as past (“History”) or collateral (“Context”) descriptors of the Central Phenomenon. These five keywords are namely qualifiers embodying facets of city.people.light from a “Design” perspective that might pertain its former editions and business context. They might be valid to describe its residual qualities over a longer period or they might be outdated in some aspects, depending on a given moment in time. For this reason, “collateral” Themes should be interpreted only as “accent” or secondary, non-generative statements to fine-tune grounded theory conclusions. From an editorial viewpoint, the analysis of axial Themes concludes empirical procedures, with the final outcome of two “umbrella Themes” that will be important as components of the final grounded theory development. Themes will not be included in the procedures related to Sensitizing Concepts, hence they will surface again at the moment of Grounded Theoretical Cluster development, at a later stage.

Transitional Proposition Analysis

While empirical materials are fixed in their representation of the primary research processes, with “transitional” textual materials the opportunity opens up for flexibility and

fluidity in editorial terms, as an analytical and developmental intervention on the semantic and formal aspects of each expression is the purpose of this specific step. In terms of Transitional Propositions, no further analysis will be conducted in this final paragraph of Section III, as primary, ancillary and collateral propositions will be mapped and discussed in the context of filtering by the three Sensitizing Concepts, as a first step of Chapter 9. In order to benefit from a final synthesis of what articulated in this "coda" to Section III, bridging primary research coding with grounded theory development, it might be concluded the following, respectively:

a) from the viewpoint of "Collateral Transitional Propositions" (9 in total), aggregating more statements into clusters of meaning might lead to a vision of the role of "Design" as a generative, proactive, integrative competence, optimal for the creation and management of both hybrid and structured processes, with a network-related switching role when it comes to higher tiers among intellectual stakeholders (thought leaders) and with a custodian role in terms of determining who should not partake in the process (citizens, students);

b) It is a "Design" capability that manages to respond to a very specific, own reference set of principles (High Design). Operating in a business-to-business context with the stretch into follow-up and applicative spin off projects, derivative from the city.people.light platform. One might conclude, that this is an optimistic, energizing vision of the role "Design" in generating urban futures, surely connected to the past roles interpreted by the global service unit;

c) from the viewpoint of "Ancillary Transitional Propositions" (8 in total), the association of city.people.light is made with "Design Thinking", design programs and a process that was not "designed" for engineering or technology-driven purposes. Therefore, this first cluster related to the Central Phenomenon, however not by axial priority, confirms the "Design" nature of the platform. Here, a hybrid mix emerges where possibilities and ambitions (educating about the lighting design opportunities, triggering communities of practice) is mirrored by references to Key Performance Indicators and similar frames (production of sketches, generation of roadmaps for product development). One might identify a hiatus with two extreme notions of what "Design" can do, on the one hand the more thought-leading role, on the other hand the more mundane delivery of "hard assets", e.g books or product roadmaps;

d) lastly, from the key viewpoint of "**Primary Transitional Propositions**" (10 in total), it might be assessed how "Design" is a contributor, delivering a book that remains as a solid reference, based on collective creation processes, with reflexive quality. The matrix is an enabling framework, integrated into design processes from other domains. At the same time, architectural "sketches" are the focus of delivery, in view of the role they play in the book. The multipurpose nature of the program is suggested, better than stated, while reference is made to key futures research and innovation activities like "visioning" or "prototyping"

The above analytical notes describe the notions of "Design" and "Designer" as semantically generated Transitional Propositions from Selective Codes, at the moment of generating textual materials towards Transitional Propositions. As anticipated above, by marking the conversion from "empirical fragments" into transitional constructs, these propositions intend to represent the first step towards grounded development. As they

have been identified on the basis of a key research priority that is external and subjective when compared to the actual earlier coding procedures, with the aim of answering the Key Research Question of this PhD study. At the same time, the above Transitional Propositions remain referenced to the “empirical cradle” of this PhD study as they represent what might be described as an echo, however abductively developed, of the entire universe of coded assets. As a next step, in Chapter 9 they will be exposed to the Sensitizing Concepts, in order to first map the quality of their underlying theoretical foundation, with the purpose to then generate conclusive grounded theory deliverables. It is worth reiterating that the below textual structures are empirically based. Therefore, where explanation might seem missing, such an apparent gap is the natural translation of priority and focus detected in empirical data. Already at the stage of this Cross-Axial Confrontation of primary research findings, if certain arguments seemed missing or certain gaps are apparent, one must conclude that the constructed intent of empirical participants might have been to implicitly exclude them.

SECTION IV
CONCLUSIONS AND REFLECTIONS

SECTION IV
CONCLUSIONS AND REFLECTIONS

CHAPTER 9
CONCLUSIONS: TOWARDS A GROUNDED THEORY

NAVIGATOR

- to be expected in chapter 9:
  Sensitizing Concepts analysis; Grounded Theory development; Key Research Question; general reflections and gap reviews.

- references from earlier chapters that enable understanding of the chapter:
  Chapters 1, 2, 3 (epistemological and applicative references); Chapter 4 (High Design, city.people.light, urban futures matrix), Chapter 5 (epistemology and methodology for empirical primary research), Chapter 6, 7, 8 (Selective Coding); Section III Introduction and Cross-axial Confrontation.

- position / role of the chapter in the PhD study overall sequence:
  theoretical/analytical, with focus on primary data leveraging into Grounded Theory and provision of the due answer to the Key Research Question.

- why the chapter is relevant:
  providing analysis of key empirical findings from primary research and developing Grounded Theory.

- to be expected after this chapter:
  Reflexive Conclusions (related to the entire PhD study).

CODING EDITORIAL SEQUENCE
Empirical Data: 13 Expert Interviews (Purposive Sampling) based on Item list

Chapter 9
One post-coding stream: Design-focused

Seventh Step: Primary Storylines
(based on Transitional Propositions, filtered by Sensitizing Concepts)
Outcome: ***Design-referenced Primary Propositions***, Chapter 9

Eighth Step: Design-referenced Theoretical Grounded Cluster
(merging / editing Design Themes with Design-referenced Primary Storylines)
Outcome: ***Theoretical Grounded Cluster***, Chapter 9

Ninth Step: addressing Key Research Question
(by analyzing and fragmenting the Theoretical Grounded Cluster)
Outcome: short list of ***10 Key Research Answers***, Chapter 9

INTRODUCTION

Within this chapter a number of different threads will converge, with the purpose to cross-reference and leverage both theoretical chapters and empirical coding, in order to explain the Central Phenomenon and in order to answer the Key Research Question that captured and summarized the challenges posed by this PhD study at the moment of its conception. If one key reference was to be provided for the final analysis, this might related to DeCerteau, as aforementioned, here sketching a possible evolutional roadmap of futures research that might stand for an umbrella metaphor of the analytical lines below:

a) from strategic representations of the future to the tactics employed in the actual operationalization of investigations;
b) from objective rationality within scientific systems to creative imagination of its actors and agents (De Certeau, 1984, xxiii).

In this Chapter 9, it must be specified how the descriptors will focus on "how" design contextually contributes to generating urban futures ("the role of design") and not on "what" "design" is or does in its whole or as per separated constituencies and operational modules. Such a perceived gap, when existing, might be the natural consequence of the fact that in postmodern times design is socially constructed and culturally distributed within social and professional contexts, well beyond any earlier semantic footprint. Alternatively, it might be considered, as a more epistemological hypothesis, the relative opacity of a field being investigated. Where, interviewed experts are being deeply immersed in the everyday of such domain. Resulting in self-implicit assumptions within Gergen's "gaze of the world". In this respect, "Design" might simply not be visible to the eyes of designers and related professionals, as here involved, at least not under the same terms of expectations by unrelated stakeholders, however educated. Lastly, it might simply be considered that the focus of the PhD study was never to actually determine "what" a design practice is. As the notion, thereof, was captured in Chapter 4 by describing High Design from bibliographic sources. Whereas, the direction of the study was set in order to understand and describe "how" a postmodern design practice, embodied by High Design as applied to urban futures, contributes to generating scenarios, as articulated in the Key Research Question and the Central Phenomenon, as specified.

The analysis will start with Sensitizing Concepts as sketched in Chapter 4 on the basis of theory and as specified in Chapter 5. Once again, so far earlier empirical data have been processed with the urgency to keep them as close as possible to the actual face-to-face dialogs. Nevertheless, this chapter will present a generative modality, with the purpose to enable the development of Grounded Theory conclusions in the form of specific textual constructs, in line with the operational choices established in Chapter 5. There will therefore be a departure from plain reproduction of processed empirical materials, towards a more comprehensive meaning-making construction of hypothesis. The Cross-Axial Confrontation of coded findings that wrapped up the Empirical Section III above already delivered:

a) general empirical conclusions, offering a summary and an analytical overview of empirical findings emerged from Chapters 6, 7 and 8, by Key Axial Categorical Confrontation across axial parameters (conclusive "coda" to Section III), with "Design" as semantic reference to isolate specific textual materials within

empirical data;

b) based on the "Design" textual recurrence (meaning "design" as a word being present in specific lines, to be selected for such presence), fragmenting of storylines as identified in each of the Chapters 6, 7, 8 into re-formulated "transitional constructs", equivalent to "posits", namely "Transitional Propositions", that will be filtered by means of the three Sensitizing Concepts.

Chapter 9 will present cross-study conclusions, including:

c) execution of analytical filtering by means of three "mappings" based on two polarities for each Sensitizing Concept continuum, mediated by an intermediate liminal space;
d) convergence of relevant primary Themes and propositions related to "Design" into Transitional Propositions and then motives;
e) definition of a Grounded Theoretical Cluster, capturing the essential explanation of the Central Phenomenon, with focus on "Design";
f) answer to the Key Research Question, with a punctual comment and a reflection on the gaps, points of attention and potential fallacies intrinsically present in the Grounded Theoretical Cluster;
g) additional theoretical review of the PhD outcome through a number of passages based on notions as defined in Chapters 1 through 4 integrated, where appropriate, by "insider's insights" or by selected empirical references;
h) critical review of the "technology paradox" ancillary motive, as identified in Chapter 5, and conclusive note.

Of course, navigation of Chapter 9 implies and requires proficiency in the categories and definitions derived from theoretical bibliography and empirical development so far in the eight chapters above, specifically including the following glossary herewith reproduced from Section III for best ease and comfort of editorial experience:

- a) codes were abductively extracted from major textual clusters within transcripts (in appendix for editorial economy purposes);
- b) generative subcategories were obtained by re-organizing topical clusters of codes into the synthesis of a simplified editorial structure (Generative Proposition), capturing the essence and bridging towards the development of Themes and grounded theory;
- c) Themes were determined by re-combining codes through Axial Coding;
- d) Selective Coding Storylines were edited by organizing specific Themes through sequencing and editing, in the form of conclusive notes for each chapter;
- e) preliminary empirical conclusions as formulated by confrontation across key axial categories (Causal Conditions, Strategies, Context, Consequences) at the end of Section III.

During the transition from bibliographic and empirical assets to generative grounded theory the necessity of synthesis and editorial flexibility might result in a relative loss of granularity and detailing, with a limited number of relevant topics to be filtered out of the final conceptual constructs. In this respect, efforts have been made to restore an overview of findings, conclusions and reflections by means of attentive and transparent insertions of additional information where appropriate. On the other hand, as beneficial such counterbalancing is, by focusing exclusively on "Design" as imperative semantic discriminator sufficient focus was guaranteed through the chapter. At various moments

items were highlighted in order to perform necessary analytical or generative procedures, according to efficiency and effectiveness. In particular, a relative gap might be perceived between the high quantity of accumulated insights about bibliographic theories of "Design" in Chapters 3 and 4 and the empirically-based conclusions presented in Section III above.

New methodological constructs will be introduced throughout Chapter 9; from "Transitional Propositions" to the actual Grounded Theoretical Cluster. One might regard them again as "posits", with the function to progressively bridge empirical data towards grounded theory. The various formats and filters adopted should be interpreted as simple tools to perform their specific task, namely to address the Key Research Question by unveiling the Central Phenomenon. At the end, with particular focus on the Conclusive Note but also applicable to the Chapter 9 in its entirety, one will reach conclusions that are connected to earlier considerations and explorations. A peculiar characteristic however will be the fact that such conclusions will substantially be "open conclusions". As they will leave the space for possible optimizations, extension and exploitation in enterprises beyond the scope and the purpose of this PhD study, from scientific to applicative purposes.

9.1) SENSITIZING CONCEPTS

As specified in the above chapter 5, the three Theoretical Tensions that emerged from the bibliographic review performed in Chapters 1 through 4 will semantically mirror the three Sensitizing Concepts, driving the analysis towards Conclusions:

- humanities vs. (formal) scientific discourse as a future studies domain;
- collective participation vs. individual intuition in envisioning the future;
- social sciences vs. design as the backbone of futures research.

As anticipated, one might identify the historical background of these three Sensitizing Concepts in the shift from modernism and positivism to postmodernism (and constructivism). Such a shift should not be interpreted as a non-reversible historical process but instead as a dialectic engagement across lines of continuum, existing in parallel during the last decades. In order to leverage these Sensitizing Concepts, an editorial frame (as anticipated in Chapters 4 and 5) will encapsulate the three textual articulations, each being articulated by means of theoretical references across:

a) the first polarity of the tension;
b) the second polarity of the tension;
c) an intermediate position described as "liminality".

In order to define "liminality" it is appropriate to refer back to Chapter 5. Where, its notion was explored starting from a definition, as edited below:

"Liminality refers to moments or periods of transition during which the normal limits to thought, self-understanding and behavior are relaxed, opening the way to novelty and imagination, construction and destruction… liminality must be posited as a central concept in the social sciences, in line with our notions of "structure" and practice" (Thomassen, 2014, p.1).

Within the analytical field as scoped, findings as distilled and processed in the earlier Section III, will be further filtered and positioned across each set of specific Sensitizing Concept parameters. The mapping exercise will comprise:

- an introduction, recapping the essence of each Sensitizing Concept, hence referring to the Philips context and the totality of empirical codes as extracted in Chapters 6, 7 and 8;

- the "mapping" itself, associating empirical Transitional Propositions developed at the end of Section III to each individual sensitizing polarity or to the liminal space;

- a concise reflection, drawing a partial conclusion related to the selected propositions for each Sensitizing Concept from generative/generalist viewpoints. Therefore, not referring to city.people.light any longer, as preparation for the forthcoming grounded theoretical development.

This paragraph will therefore realize a deeper cross-referencing of empirically developed textual materials (Transitional Propositions, rooted in codes and flexible for processing where appropriate) with theoretical and bibliographic constituencies, opening up to the possibility of grounded theory development, in the next paragraph. Although only "Primary Transitional Propositions" will be key in developing grounded conclusions, the "mapping" exercise will also include "ancillary" and "collateral" propositions, with the purpose to provide the maximum granularity to the theoretical forming and the best transparency to the developmental steps.

First Sensitizing Concept:
(postmodern) humanities* versus *(formal) scientific discourse

Polarity One: Humanities
Polarity Two: Positivist Sciences
Median: Action Research

As based on the general empirical analysis, no apparent sign of falsifiable, reductionist, quantitative research emerged through the city.people.light empirical analysis. One might speak of "endurance" but this is related to presumed business repeatability or at least continuity, and it does not appear to be grounded in any positivist notion of objective procedural objectivity. More in details, the "scientific infrastructure" of the entire exercise was apparently limited to the sole presence of formalized qualitative research techniques and leverage of the Urban Futures Matrix, as detailed in Chapter 4 and as described in its function in Chapters 6, 7, 8. In particular, the Urban Futures Matrix provides consistency and continuity between qualitative interviews and co-creation, between city.people.light proprietary programs and ancillary extensions or additional expansions, even beyond the direct control of Philips (e.g., Bredal's application to Norwegian own projects). From a "Process" viewpoint it is possible to observe examples of "reification" in terms of the modalities of stakeholder involvement, with participants mostly operating at the level of "contribution" as part of an "Elite Club" (Pisano, Verganti, 2008, pp.78 – 86), plus a physical separation being enacted, dividing:

a) research data analysis (qualitative interviews to feed the trend matrix) from
b) design workshops (supported and facilitated by means of the trend matrix).

The preliminary hypothesis, also anticipating the third Sensitizing Concept below, is that city.people.light offered a number of para-scientific moments in terms of its discourses. However, its intrinsic balance point, apparently, might have remained anchored to narrative lines and general requirements characterizing more speculative humanities than to the stricter requirements of scientific processes in positivistic sense. This appears to be in line with High Design humanistic principles. Likewise, relationships, however productive and intense, do not seem to stretch into generating communities of practice. The peculiar "space of liminality" where Action Research is referred, might give the opportunity to clarify that this Sensitizing Concept is not about "rationalist versus humanist" knowledge, as the underlying motive here is "speculation" versus "impact". At a level of structural moments, within the Central Phenomenon, namely "…*research-based process of creation and subsequent communication (through editorial products) of scenarios and concepts in postmodern times…",* it can be highlighted how the program enjoys a strong presence of "Horizon 3" innovation concepts. Reinforcing the hypothesis that rhetorical approaches might have been deployed to channel speculative storytelling. Horizon 3 being detached from everyday concerns of feasibility, a higher degree of *"suspension of the disbelief"* appears as a natural requirement of the final concepts and their communication through mimetic narratives. Furthermore, at general "product" level (communication), the book, humanistic medium *par excellence* as editorial format, displays a mixed message. Claiming para-scientific authority while de facto channeling motives and topics related to preferable futures. Therefore, narrative elaborations of posits based on selective surrogate knowledge. The book adopts eminently, a visual form as a key manifestation of the sensorial focus of (architectural) design.

First Polarity: Humanistic Discourse

The "Humanistic Discourse" as emerged from the bibliographic review in Chapters 1 through 4 might be captured and simplified by the following five keywords:

- storytelling narratives
- speculation
- *suspension of the disbelief*
- utopia / dystopia
- use of metaphor.

Among other features humanities might be characterized by the lack of operational direct intent or impact in achieving change in "the real", although representing utopian or dystopian scenarios, often with a strong ethic drive. In particular, references presented in Chapter 1 comprised both classic authors, e.g. More, Defoe, as well as contemporary Science Fiction "masters" Bellamy, Dick, Gibson, and novelists like Houllebecq. There is definitely a tension towards the future, and one towards a preferable future, although sometimes represented in the form of dystopias. In terms of theoretical references reconnecting this domain to formal research practices it might be relevant to recall the extensive work by Jacobsen et al. (2013) on various hypothetical formats adoptable to deliver findings and conclusions in the social sciences. Here summarized by the following quote, as reiterated from the bibliographic chapters:

"The methods of social science are akin to literary criticism, deciphering codes and translating languages" (Jacobsen et al., Eds, 2013, 6).

Besides its para-scientific text, employing basic modalities of storytelling derivative of architectural and design trade-related writing, the city.people.light book format adopts a representational approach that is largely centered on visual narratives (sketches and, where applicable, photographic representation) as leading communicative triggers for storytelling. Portraying scenarios that require *suspension of disbelief*, particularly when referred to longer term futures based on, as yet, non-existing technologies (Horizon 3).

Transitional Propositions:

9.2.1.9 Collateral: *Design enables an experience of "virtual co-creation" by means of a process that connects insights generated beforehand from expert interviews, to inspiring multimedia visualizations.*

This proposition highlights the visual nature of program delivery.

9.2.2.6 Ancillary: *Sketches are produced in collective context with facilitation, and are mission-critical to gain insights both in the vision of individual designers as well as in future developments.*

This proposition highlights the visual nature of the program delivery, with particular focus on sketches.

9.2.3.6 Primary: Sketches need to be managed during and after workshop in view of future publication, possibly involving senior designers as ancillary illustrators.

This proposition highlights the visual nature of the program delivery, with particular focus on sketches.

Second Polarity: Scientific discourse

This was described in the bibliographic chapters as the realm of classic positivism. Where research findings are mostly generalized in the form of mathematical formulas of universal validity to achieve impact in the "real" (Gergen, 2014). There is a natural tension towards the future, perhaps even in terms of "progress", however there is neutrality on its ethical standpoint in terms of preferable quality. Scientific discourse can be identified by keywords including:

- falsiability
- instrumental rationality
- reductionism (associated to quantitative research standards)
- reification (real or virtual laboratories where practices are rendered inert first)
- semiotic discourse with its own procedures, resembling an "*automaton*".

Within this "System view" (Habermas), reference can be made to the likes of Condorcet or Kahn, not forgetting practices like software-based modeling. Within this context three quotes might be recalled, the last one also valid for the second Sensitizing Concept, as being in line with the motive inclusion / exclusion dynamics of research subjects:

"…the "discourse" of social sciences […] must refer to the standards and protocols of "scientific doing", therefore generating socio-linguistic manifestations that, however

imperfect, must maintain a formalized and protocol nature in their structuring and in the processes that lead to their creation" (Greimas, 1976, Tr. It. 1991, p.3).

"…[…] In this light, "classic" sociology structures a "proper" territory in semiotic terms, focused on the passive, taxonomic dissecting of inert experimental objects, explanted from daily practices and isolated from their organic every day: such "proper" is a combinatory outcome of existing power relationships within society, and a victory of space over time (De Certeau, 1984, xix)…

"[…] A social effect of this universal procedure of science can be seen in terms of the alienated divide between "the multitudes left out of the networks of scientists…" (Latour, 1987, 180)".

In this context, a natural extension of the "scientific discourse" might be identified in the linear translation of experimental discovery into engineering applications, as described by Flusser and indirectly referred to by Munari in Chapter 3, completing the line of articulation of this specific polarity of the first Sensitizing Concept. Whereas for DeCerteau "Engineering" was the intermediate skillset between fine arts and science, Munari identified "Designers" as distinct from engineers. As a possible tool to govern the city.people.light, the Urban Futures Matrix was identified as a solid reference and as such presented and valorized in the books.

Transitional Propositions:

9.2.3.5 Primary: From visioning to prototyping, the socio-cultural matrix is the para-scientific, analytical, clear starting point of a hands-on lighting design workshop...

This proposition generically reports the existence of a framework to govern the program, namely such matrix.

Median Space: Liminality

For this first Sensitizing Concept, the "space of liminality" will be described as an intermediate area of activities where formal processes are still referred to as valuable in order to achieve an impact on "the real" world. However, such processes work without the intrinsically positivistic "sterilization" implied by DeCerteau or by Greimas. In particular, the speculative tension towards "utopia" (or its equivalent inversion, "dystopia") does not remain a mere speculative feature of storytelling but translates into the actual drive to change "the real" by achieving direct impact, in line with Gergen's proposition to shift from mirroring to making the future, by research (Gergen, 2014). Within this liminal space between humanistic storytelling and formalized praxis there lies the notion of intervention within the field. In order to achieve "change" by means of action well beyond scientific measurement or assessment, empirical observation or speculative *suspension of the disbelief*. Such liminal space works according to a value-based approach where bias is not rejected, as captured in the keywords below:

- action-orientation
- hybrid
- normative
- value-biased

- reflexive

Reference authors might be those social scientists who strived to achieve change by intervening in society and culture. However, keeping formal methods organized by epistemological rationales as central: Marx ("*Becomingness*"), Slaughter, Jungk, among others, following the general line of thinking of Gergen (2014). A further reference to describe this space of liminality can be made to the *"linguistic turn"* of social sciences, acknowledging research participants as active "communication subjects" (therefore not just as reified objects) and research praxis in itself as a narrative process of shared generative nature, according to the quote below, proposed with particular focus on its "narrative" aspect:

"A reflexive insight (justifying such "hybrid" inclusion of non-scientific narratives) identifies sociological research with the *"…interactive production of a narrative"* (Melucci, 1998, p.305)".

In essence, the liminal space is therefore structured by a tension from "speculation" towards "action" in order to achieve "impact", by means of research practices that might be described as eminently participatory and democratic, also in foreshadowed continuity with the next Sensitizing Concept.

Transitional Propositions:

9.2.3.4 Primary: The program enables stakeholders to engage in personal reflexivity on the lighting design professional practice.

This proposition highlights the reflexive nature of the program.

9.2.3.10 Ancillary: *The program is not technology driven and is not designed for an engineering mindset…*

This proposition indicates that the program might be oriented to alternative approaches than engineering.

9.2.3.11 Ancillary: *The program can be identified as a "design program", enabling deeper reflection on the lighting design professional practice than fast paced project delivery.*

This proposition highlights the reflexive nature of the program.

Comment to the First Sensitizing Concept

Some preliminary reflections might be proposed based on the empirical-based Transitional Propositions and might be distilled as follows:

a) the perceived elements of "humanistic discourse" are limited to "speculative" visual storytelling through sketches (one primary, one ancillary, one collateral);
b) the (para-)scientific discourse in terms of aspired falsifiability and continuity with engineering is only partially represented by the urban futures matrix as a governing framework (one primary);

c) the potential liminal space between humanities and scientific discourse is mainly articulated in the reference to individual reflexivity in the general organizational context where city.people.light is activated, e.g. at given moments of communication or activation of future scenarios (one primary, two ancillary). The reference to "Design" is here limited to the generic "lighting design" practice at universal level. Therefore the liminal space, however based on primary transitional construct, might be evaluated as less specific to the actual role of city.people.light in generating urban futures, "by design".

Transitional Propositions and their related reflections will be leveraged in the next paragraph, for grounded theory generation purposes. However, given the generic nature of the "liminal space" here identified, it can be foreshadowed that this specific finding will not be included in the Grounded Theory Cluster of conclusions. Whereas, they will be the object of a concise reflection in the gap analysis.

Second Sensitizing Concept:
collective participation* versus *individual intuition

Polarity One: Participatory Research
Polarity Two: Genius Forecasting
Median: (Design Districts) Networks

In terms of overall city.people.light, a clear dichotomy is established between key constituencies of the program and how the program might be either self-perceived or externally perceived; in terms of its function and impact on the Philips brand equity and storyline:

a) Philips as horizontal facilitator: on the one hand, "relationships" are paramount to all aspects of the approach. From CRM and strategic marketing to the actual methodologies of content generation. Where, focusing on "Process" as Central Phenomenon constituency, a collective orientation might become even more apparent due to the adoption of "workshop" as reference format;
b) Philips as vertical leader: on the other hand, a key objective is to position Philips (the brand, articulated in its specific "Architects' Approach" *brand theme*) be it Philips Lighting (business unit) or Philips Design (service unit), as "thought leader", even an educational agent and therefore in a position of relative authority over its audiences.

This second Sensitizing Concept will stretch on a rather unambiguous axis. It will do so in terms of investigating the question on what is the own "knowledge generation engine" of city.people.light, From "cooperation of many" to "(trained) judgement of one leader", with a possible intermediate liminal point in the concept of "Design Districts", where decision-making and leadership are diffused and are firmly vertical at each specific entity and enterprise, yet multi-centric in their totality as structured in organic networks. Perhaps it might be appropriate, in the context of this Sensitizing Concept, to distinguish two separate phases in which the Central Phenomenon will be articulated. That of content generation ("creation"), more collectively attuned, and that of content distribution ("communication"), more attuned to a more vertical tone of voice of an author (however collective with three (Bevolo, Pereira, Venzke) or two (Bevolo, Rosenius) names involved. From this last viewpoint, city.people.light might be described as individualistically attuned, as authorship demands, however presented as the outcome of

a collective process (based on the supposedly participatory workshop practice). In this respect, stakeholders remain more "contributors" than full-blown "co-creators", with reference focus to be attributed again to the above mentioned "Elite Club" model (Pisano, Verganti, 2008, pp.78 – 86). The latter reflects practices of Design Districts, as well, that might be described as highly participatory. However, limited to specific professional profiles based on individual competences, with decision-making encapsulated at enterprise level, in the hands of CEO's or other vertical agents.

First Polarity: Collective Participation

This first polarity addresses the universe of co-creative, contributive practices within research processes, including aforementioned Action Research, which is therefore explored again in view of its "participatory" quality, after constituting the space of liminality of the first Sensitizing Concept on the basis of its "actionable" nature and related "impact". In this context, therefore, Action Research shifts from being a reference to the liminal space between humanities and scientific discourse and to assuming the position of example of an active vision of research based on the idea of change through democratic participation, rooted in its scientific antecedent, "Action Science":

Action Science >>> Action Research>>> Participatory Practices

As theoretical root of the above, it might be feasible to refer to the following quote, as presented in the related Section I:

… *"a democratic process concerned with developing practical* knowledge*, knowing the pursuit of worthwhile human purposes, grounded in a* co-creative *worldview…"* (Reason, Bradbury, Eds., 2001, rep. 2004, p.1).

In order to further specify the methodological nature of collective research processes, at the level of earlier definitions, one might identify the following reference to the procedural qualities of participatory approaches to research:

"… Participatory judgmental methods represent less formal but still systematic ways of giving estimations of the most probable future, or most viable ways to get a certain objective in the future…" (Kuosa, 2012, pp.24 – 25).

Transitional Propositions:

9.2.1.4 Collateral: *The program is designed for business-to-business purposes, therefore it does not include any citizen, student or open participation…*

It is specified by this proposition that non-professional stakeholders are not involved.

9.2.2.3 Primary: The book is designed as a solid reference at a higher intellectual level, incorporating multi-faceted insights from thought leaders' interviews (outside-in approach) with a critical mass of content generated in workshops…

This proposition highlights the collective nature of the program as a backbone to its communication; including both external input and participatory creation.

9.2.3.2 Primary: Workshop participants contribute to and lead concept design, based on teamwork dynamics.

This proposition highlights the contributive and team-oriented dynamics that govern the workshop format.

9.2.3.3 Primary: The program is designed as outside-in and from one edition to the next one it opens itself to higher involvement by inviting increasingly applicative professional stakeholders….

The empirical materials behind transitional constructs for this proposition lead to identifying a clear progression, in time, in terms of involvement of application-oriented (hands on) stakeholders. With collective participation being staged and enacted at different moments of the process; mostly within earlier and intermediate phases. This results in an increasingly co-creative perception of city.people.light, by design.

Second Polarity: Individual Intuition

The practice of *"genius forecasting"* is widely diffused in the foresight consulting sector, especially in the design, fashion and aesthetic related fields, with recurring cases of strongly biased futurologists whose work is actually closer to curatorial editing than scientific or participatory foresight" (Bevolo, Price, 2006, p.2):

"…The most subjective method would be the "genius forecasting", which is strongly connected to intuition, visioning, visualizing…" (Kuosa, 2012, pp.24 – 25).

Reference in this case can be made to the notion of "*Trained Judgement*", as presented in Chapter 4, based on abductive processes ruled by individual intuition relying on an accumulation of experience, insightfulness and competence. Namely, this is a modality of leadership expressed, among others but not only, by the architect or the designer in the context of decision making within complexity. This second polarity stretches to pertain authorship in terms of editorial control, selection and direction of the latter and final phases of the city.people.light process resulting in the book format.

Transitional Propositions:

9.2.3.8 Ancillary: *Design Thinking is at the basis of the program, which is structured according to a future-oriented, multidisciplinary, playful design process....*

This proposition does not exclude individual intuition by default, as the latter it could be associated to both "Design Thinking" as well as to "playfulness".

Median Space: Liminality

To define the intermediate space for this second Sensitizing Concept, the reference will be made to the organizational praxis of Italian districts, as presented in Chapter 4. In Design Districts, as analyzed by Verganti, (future) visioning emerges as an outcome of collective, dialectic processes. However, such visioning process pertains very distinctive moments and actors with a distributed ownership of decision-making capacity overlapping with legal control of enterprises and managerial/ contractual capacity of specific individuals:

Informal networks >>> Communities of practice>>> Design Districts>>> Enterprises

Within "Design Districts", according to Verganti, each actor participates in a fluid, sometimes informal, constellation of networked knowledge-generation processes as based on her specific role and competences. Therefore, each actor contributes and participates to the visioning process in an active modality and without dynamics of alienation. Decision-making at level of managerial capability is however effectively allocated according to efficient organizational principles of concentrated leadership, e.g. a sociologist might have a vision and the designer might translate it into a powerful concept. However, it will be the entrepreneur or the investor ultimately deciding whether to take business risk in pursuing it or not. In this peculiar way, the Design Districts are both extremely fluid and dynamic, while being regulated and governed according to specific business requirements.

The point of differentiation with Action Research and related communities of practice is substantial. The subject of Action Research procedures might be described as "social innovation", possibly pushing cultural norms or organizational models beyond existing paradigms. "Design Districts" pertain instead profit-making processes within the capitalist economy. However, as presented in Chapter 4, in the latter one might still identify generic traits of a modality pertaining the "lifeworld" category by Habermas.

Transitional Propositions:

9.2.1.3 Collateral: *Design creates a thought leadership foresight framework to successfully study, anticipate and leverage a deep understanding of urban change, involving both senior and younger architects within major architectural firms, in order to envision innovation solutions that will happen over time. […]*

This proposition identifies how the program is built according to a unidirectional framework, however complementary to collective involvement of stakeholders.

9.2.2.7 Ancillary: …*A relevant professional community for the program might include architects, landscape architects and interior designers, covering the expertise required in the "built environment" professional landscape...*

This proposition identifies the "built environment" professional profiles as potential members of a program-referred external stakeholder community.

Comment to the Second Sensitizing Concept

The following preliminary comments might be extracted as a synthesis of the above selection of Transitional Propositions:

a) collective dimensions of city.people.light are clearly represented at a qualitative research level with external (knowledge) input being incorporated in the process (thought leader interviews) as well as the intrinsic contributory nature of workshop design and management, with only professional stakeholders being involved (three primary, one collateral);
b) the intuitive drive ("genius forecasting"-related) is intrinsic in program creative processes, however it appears weaker in terms of relevance (one ancillary);

c) the liminal aspects of this collective/intuitive axis are included in secondary Transitional Propositions covering the hybrid nature of the process, as collectively performed, with clear individual roles and identified professional profiles (one ancillary, one collateral).

This second Sensitizing Concept sketches a more divisive outcome. The city.people.light program might be described as collectively oriented with a number of hybrid aspects. Perhaps somehow recalling the diffused leadership and division of tasks of "Design Districts". Whereas, the intuitive and individual dimension of personal charisma ("genius forecasting") can be considered as less relevant, both for quality ("collateral") and content analysis of the related proposition.

Third Sensitizing Concept:
social sciences* versus *(urban) design

Polarity One: Social Sciences
Polarity Two: Design
Median: Image and Autopoiesis

This third Sensitizing Concept finds its point of origin in the same footprint as the first Sensitizing Concept above. As a (futures research) formalized process, at least in specific modules and moments, city.people.light aims at being governed by principles reflecting practices of social sciences. As examined above its rationale maintains, at least at ancillary level, a para-scientific storyline of endurance and business repeatability, pointing towards social sciences, although not based on any pretention of falsifiability of results. Here, the storyline of High Design processes, based on an explicit promise of "business success by design", might be seen as loosely reflected in the presence of the Urban Futures Matrix as a tool of continuity and coherence.

On the other hand, basic format elements might point towards a preponderance of the role of "Design" in the communication moment of city.people.light; e.g. workshop deliverables (visual sketches), with the "book" constituting itself a "designed object". As analyzed above, both the "book" as well the "visual sketch" represent carriers of authority in the architectural context where they structures the city.people.light messaging. Furthermore, it appears relevant to recall the Philips Lighting ambition to trigger both new product roadmaps and ancillary innovation projects, originating from city.people.light practices and findings. The line of thinking is to design the program in order to make such findings actionable in "the real" world of tangible manifestations. This might be seen as typical for "Design Thinking" and its orientation towards achieving impact at pragmatic level. At level of "Product" descriptions, sketches embody the role of "images" for future-making, recalling both design modalities and Polak's rationale about "images of the future".

Within this third Sensitizing Concept, the thematic analysis of "Design"-related constituencies therefore generated a semantic paradox, with "Design" being:

a) on the one hand- reduced to the sole dimension of "the visual", a sort of "degree zero", design-specific role within the "semiosphere", while
b) on the other hand being indeterminately described as an "agency" with the capacity to generate and communicate "knowledge".

References to “Design” as a future-making competence might be recalled, hence identifying “Design” as a potential *“futuring-versus-defuturing”* practice (Fry). Contemporary urban design practices, like *“Spatial Agency”* and their pragmatic applications, as presented in bibliographic reflections, result in progressive de-structuring of architectural processes. Such design processes currently appear in partial transformation towards new practices, e.g. social innovation. Social innovation and similar approaches might represent possible touchpoints between the purposes, challenges and tactics of urban designers and those of futures researchers, with the generative nature of “future-making” at the center of cross-disciplinary practices.

First Polarity: Social Sciences

In order to establish reference parameters for the first polarity of this third Sensitizing Concept it is possible to revisit the aforementioned quote by DeCerteau, focusing on the deeper mechanisms of “classic” sociology, as an extension of what semiotics would describe as “scientific doing”, or praxis:

“…[…] In this light, “classic” sociology structures a “proper” territory in semiotic terms, focused on the passive, taxonomic dissecting of inert experimental objects, explanted from daily practices and isolated from their organic every day: such “proper” is a combinatory outcome of existing power relationships within society, and a victory of space over time (De Certeau, 1984, xix)…

Besides the above reference, in the bibliographic chapters it was possible to isolate the processes of “performing social sciences” work, as highlighted in the bibliographic review, herewith quoted from own elaboration by the PhD researcher:

c) at level of milestones in the process: *from theories to hypotheses to observations to empirical generalizations, feeding back theories: by connecting hypotheses and empirical generalizations, the researcher can test hypotheses, both by generating feedback to theories as well in terms of logical inference* (adapted from: Wallace, 1971 – 2009, 18);

d) at level of operational praxis leading from one milestone to the next milestone: *“logical deduction” connects theories with hypotheses, whereas “interpretation, scaling and sampling” lead from hypotheses to observations, in order to enable the necessary “measurement, sample summarization and parameter estimation” that will enable the generation of those empirical generalizations that –once processed into concepts and propositions- will provide feedback into the theoretical realm* (adapted from: Wallace, 1971 – 2009, p.18).

As specific features of this process that were not encountered in the empirical analysis of city.people.light, therefore constituting potential points of differentiation thereof, it might be possible to include:

- feedback to theory;
- measurement;
- sample summarization.

The second and third points above were described by both De Certeau and Slaughter, separately, as substantiating the positivist paradigm and as partially dissected in the first

Sensitizing Concept. These two points pertain the quantitative analysis of societal dynamics, which is a priori excluded from the urban futures approach at hand, based on qualitative research only. The first point ("feedback to theory") peculiarly marked the earlier differentiation proposed between Action Research and Action Science, where city.people.light was hypothetically probed. As anticipated in Chapter 4, the latter does exceed the scope of High Design processes, including city.people.light as no structural feedback loops of scientific nature appear formalized beyond project boundaries. This was empirically tested also in view of the limiting conditions imposed by the corporate and business unit organizational context, where knowledge requires applicability in order to ultimately represent value and no archives exist to enable longer term or deeper scope learning loops.

Transitional Propositions:

9.2.3.5 Primary: From visioning to prototyping, the socio-cultural matrix is the para-scientific, analytical, clear starting point of a hands-on lighting design workshop...

This proposition generically reports the existence of a framework to govern the program, namely the urban futures matrix.

Second Polarity: Design

As introduced above, it is suggested to relate postmodern "urban design" to "practices" of "Minor Architecture", in line with Deleuze's notion of "Minor Literature" (Kafka). In order to provide an advanced definition of "what" urban design is, in continuity with such postmodern practices in Chapter 3, bibliographic sources delivered the notion of *"Spatial Agency"* emerged [Awan, Schneider, Till, 2011, p.29 (3)], as articulated in Section I:

1) *"Spatial"* expands the field of architecture from *"physical objects"* –which are static, be it building or furniture- to *"social spaces"*, which are by nature *"dynamic and political"* (Awan, Schneider, Till, 2011, p.29), with the resulting necessity to claim back those networks of practice excluded by earlier description of architecture as sole "building design" (Awan, Schneider, Till, 2011, p.30);

2) *"Agency"* is *"described as the ability of the individual to act independently of the constraining structures of society"* (Awan, Schneider, Till, 2011, p.30), where, following theory by Anthony Giddens; *"structure"* identifies *"the way society is organized"* (Awan, Schneider, Till, 2011, p.30), resulting in a dynamic dichotomy "agency/structure" that positively creates a perpetual tension in the newly defined design field (Awan, Schneider, Till, 2011, p.31).

In continuity with both Stoner's vision of "Minor Architecture" and this notion of *Spatial Agency* it is possible to sketch a definition of architectural design that moves from objects to "social spaces" and from professional constraints to the ambition to impact *"the way society is organized",* therefore being increasingly re-modeled towards "social innovation", hence closing the circle with Action Research-oriented social science practices. It should be recalled and emphasized how forms of architectural design in the same class as *"Spatial Agency"* are practiced by a number of international emerging firms (e.g. Vallo Sandovsky in Slovakia), being therefore a professional approach beyond pure theoretical reflection. Hence, expressing a developmental direction where

"practiced urban design" takes on board challenges that might exceed its conventional limits, beyond conventional business models and CRM.

In Chapter 4, "Design" was presented as hypothesis that if "Design" equals to "a module of embodied knowledge", then "Design" can be a vector of research products and -consequently- their production processes. On such bibliographic basis, it was possible to then introduce, always in Chapter 4, the notion of High Design. Furthermore, in Chapter 3 "Design" was discussed in its dystopian aspects, from *de-futuring* (Fry, Sudjic, Slaughter) to the challenges faced by designers in taking responsibility for the impact of their actions and deeds. High Design was created to incorporate self-generating modules and competences, from future trends research to sustainability, to prevent such danger by aiming at generating people's preferable futures. Namely, High Design was described as a "design process" integrating knowledge generation in the form of people-focused research, with the purpose to generate preferable futures:

"High Design is a human-focused, research based, design management process for repeatable business success. High Design integrates the input from socio-cultural disciplines and people research, and then makes that information and insight the starting point of every design project" (Bevolo, Gofman, Moskowitz, 2011, p.188).

It was repeatedly articulated and empirically evidenced how city.people.light, as an urban futures program, is an application of High Design, both in process (at least until 2007), as well as in its ethos and general principles (to this day). In this respect, one might identify such a program as derivative from a corporate design postmodern context. Whereas urban design might respond to different principles, e.g. those of *"Spatial Agency"* as outlined above.

Transitional Propositions:

9.2.1.1 Collateral: *Design takes the lead in creating insights by processing expert interviews, and then presenting such insights visually, in order to challenge the current status quo of High Tech.*

This proposition highlights the challenging quality of the program versus the status quo.

9.2.1.2 Collateral: *Design generates a program with hybrid elements from R&D (research) and strategic marketing, progressively opening it up in its second edition to external stakeholders.*

This proposition highlights the integrative nature of the program, as multidisciplinary.

9.2.1.8 Collateral: *The value of "design" within the program lies in its intellectual capital (e.g., relating to thought leading interviewees, steering the process beyond immediate applications, consistently integrating workflows within existing tools to achieve continuity with the past).*

This proposition highlights the hybrid and integrating nature of design within the program, as multidisciplinary.

9.2.2.2 Primary: In the fast paced sector of lighting design, the book could be an everyday reference.

This proposition identifies an opportunity to position and profile the program at the forefront of the design professional standards.

9.2.3.9 Ancillary: *The program promotes the professional value of lighting design in general...*

This proposition identifies an opportunity to position and profile the program at the forefront of the design professional standards.

9.2.3.11 Ancillary: *The program can be identified as a "design program", enabling deeper reflection on the lighting design professional practice than fast paced project delivery.*

This proposition identifies High Design as the governing principle of the program.

Median Space: Liminality

In general terms, throughout Chapter 3 and Chapter 4, "Design" emerged in view of its functions and qualities, from the world of the sensorial and the experiential, on the basis of an *"autopoietic"* dynamic (Kuosa) redefining the human context. From this viewpoint, "Design" can therefore be generically described as a future-making agency. One with the power to generate the sensorial, experiential and material world, by defining through applicative processes its aesthetics and interaction modalities with humans. As a potential touchpoint between social sciences and design, the specific semantic area of "image" will be analyzed here as a modality of visualized storytelling, in combination with "autopoiesis" as a self-generative modality. Visualization historically enabled future concepts to be communicated in impacting fashion, e.g. in the work by Syd Mead as Science Fiction illustrator in the 1960's early experiments. Visual research might entail social sciences procedures (sociology, anthropology) or speculative storytelling without any empirical grounding (fiction), or personal interpretations of facts, however documented (journalism). The space of liminality for this last Sensitizing Concept is epistemologically referred to the domain of futures research. Where the content communicated by images can be entirely oriented to the articulation and communication of socio-cultural values as manifested through posits. Firstly, the increasing awareness of the role that visualization and resulting "images" might play in reporting futures research:

"Anticipatory Anthropology… is a mode of gathering and using available data, information and knowledge to assess future possibilities… to anticipate or visualize possible alternative future paths for the same culture…" (Textor, in: Mead, 2005, p.2)

Such power of visual representation might be discussed as a potential asset for Action Research procedures of futures research, those aiming at impacting "the real", where the "image" might assume a role of trigger for change, beyond any passive and plain communication and reporting:

"Polak described the capacity to envision the future as a "gradual emancipation process": he noted the importance of a guiding image in helping navigate discontinuities or turbulent times" (Jarratt, 2010, quoted in: Bishop, Hines, 2012, p.238)

As "image generation" is a natural and intrinsic competence of "Design", be it graphic art direction or brand reputation, the above quotes and the processes describe a strong potential point of convergence between the two discourses of sociology and design. One where social sciences (as futures research) consciously appropriate and leverage a non-textual, non-rationale, non-formulaic format, aiming to possibly achieve change. Furthermore, one might consider the following quote, referred to the competence of social sciences to generate their own systems, by means of implicit paradigm change (e.g., from positivist to constructivist):

"…systemic, taxonomic, regulated practices" where the "process" is potentially self-generative of new systems (Greimas, quoted in: Bevolo, Price, 2006, p.6)

Here the concept of "autopoiesis" ("How" social sciences self-generate) can be identified. The first part of the above reference confirms the qualities of social research in its positivist statute. However, the second part, indirectly referencing Greimas, displays an important detail, that of a supposed self-generative nature of social sciences, even within a structural framework of relative rigidity. Such view of futures research, as extension and discipline within the more general context of social sciences, might resonate with the concept of "autopoiesis". At the same time, "Design" as well was specified as an agency of *"…self-production, self-renewal and self-definition"* of society ("How" design self generates). Design as a catalyst in the process of *"…autopoiesis of our human context"* (Kuosa, 2012, p.72). Such conclusion appears in line with theoretical lines of thinking articulated in chapter 3 with reference to the bibliography by Flusser and Fry. Fry in particular, as already reiterated above, offers a notion of "future-making" where "Design" is once again central. This median space of liminality will therefore focus on the power of the "image" as a key element of continuity between social sciences and "Design". Social sciences and design are then integrated by the comparability of self-generative processes that might characterize both domains.

Transitional Propositions:

9.2.1.5 Collateral: *The program is based on High Design principles.*

This proposition identifies High Design as the governing principle of the program.

9.2.1.6 Collateral: *High Design elevates "design" to a higher master planning role than product design, integrating technology, sociology and other knowledge, in order to generate insights and experience flows.*

This proposition highlights the hybrid and integrating nature of the program, as multidisciplinary.

9.2.1.7 Collateral: *Spin offs based on the methodology are designed and executed, according to diverse interpretations of the program blueprint.*

This proposition highlights how the approach is flexible, scalable, and self-generative.

9.2.3.1 Primary: …There is no specific follow up designed after workshops.

This proposition highlights how the approach is flexible, scalable, and self-generative. No specific reference to visual points of connection between the two domains emerged

from the review of empirically based transitional constructs, besides the indirect reference to High Design, where image-making plays a pivotal role at intrinsic level.

Comment to the Third Sensitizing Concept

By aggregating the above Transitional Propositions allocated to this Third Sensitizing concept it is possible to achieve a first overview in the form of the shortlist below:

a) the structuring of the program is determined by its own internal regulatory mechanism, identified in a (para-)scientific qualitative research tool, urban futures matrix (one primary), hence re-connecting to social sciences and -to some extent- offering perceived "endurance" (Gergen, 2014);
b) The program is qualified as "design program", with a key integrative function placed in "design" practices and a perceived status of leadership in its own specific business professional context, thanks to its key structural moment of communication (book). (one primary, two ancillary, three collateral);
c) High Design includes modular components and it is described as a generative process that might offer scalability and flexibility, without any planned prescription to regulate spin offs or follow up's (three collateral, one primary).

All the above Transitional Propositions, as selected and allocated to specific polarities across the Sensitizing Concept continuum, might contribute to the hypothesis to qualify the program approach as "design-driven Action Research", as already foreshadowed in the theoretical Chapter 4. It is however necessary to further specify how the differentiation among primary, ancillary and collateral propositions influences the actual conclusions. This appears appropriate in order to keep the attention on the empirical focus of the analysis. Where, "primary transitional constructs" represent the closest statements to the kernel of the "Central Phenomenon" from the perspective of the Key Research Question.

9.2) FROM PRIMARY STORYLINES TO GROUNDED THEORY DEVELOPMENT

As a next step in the development of Grounded Theory, "Primary Storylines" will be crafted, with procedure as per the earlier steps performed to generate Selective Coding Storylines. The difference will be that Primary Storylines will be developed from unified Transitional Propositions (Design-focused) and not from separate Generative Propositions (History/Context, Product, Process) because the Cross-Axial Confrontation merged the earlier three coding streams into one. Primary Storylines were developed by means of editing the **"Primary Transitional Propositions"** above (as **highlighted in bold above**). Such propositions were assembled and streamlined to form the basis of each storyline. Focus is on "Design". In order to privilege readability as a main priority in this paragraph, the actual construction of each storyline will not be demonstrated by means of sequential phases. At this stage, it will be appropriate to start the analysis by reconnecting again the two "umbrella Themes" as emerged from the coding process, when exposing the results thereof to the key axial category, "Design", namely:

Design as intellectual partner in a multidisciplinary platform
Design practices and the matrix as multidisciplinary integrators

These two axial Themes will be leveraged in the final theoretical textual structure, where they will act as reference and synthesis, while the Sensitizing Concepts and their related propositions will generate the backbone Primary Storylines articulating theory, by means of further filtering and focusing on "Primary Transitional Propositions" as assets for development of Primary Storylines. The latter should be regarded as a full independent elaboration by the PhD researcher, who herewith assumes editorial control of the generative process in order to guarantee the best efficiency and effectiveness at conceptual and textual levels. Of course, each component, statement or sentence of each Primary Storyline might be traced back to the Transitional Propositions as filtered through the Sensitizing Concepts, hence reconnecting, although indirectly from textual viewpoint, to the actual empirical nature of the primary data input, collected and coded in Section III.

First Primary Storyline:

A "scientific discourse" modality within this program is exercised by means of a para-scientific, analytical, repeatable too; the urban futures matrix. The matrix is leveraged in workshops where sketches are generated, representing concepts, that are managed by designers to generate urban futures storylines. The program is visually attuned to design modalities of representation of the future and offers a relevant liminal space, where it is perceived as individually reflexive for involved stakeholders.

Second Primary Storyline:

The program is strongly perceived as an "outside-in" performance of collective and participatory nature, with higher intellectual value. External experts (thought leaders) contribute their insights, while concept design workshops engage professional stakeholders, offering them the possibility to lead in creation within teams. Although excluding non-professional stakeholders, the program progressively opens itself to wider circles of participants.

Third Primary Storyline:

A "scientific discourse" modality within this program is exercised by means of a para-scientific, analytical, repeatable tool; the urban futures matrix. The liminal space of the program is enabled by its self-generative flexibility and scalability, with structural moments of communication (e.g., book), which might assume a leadership status as specific design standard within their industry of reference.

On the basis of these Primary Storylines, in combination with the two Themes as identified before in the analysis to be leveraged as "umbrella Themes", a textual clustering is proposed, in order to extract the grounded theory statements functional to capture the explanatory and generative essence of the Central Phenomenon and Research Purpose. The Grounded Theory Cluster is divided in a "structural moment" (referred to communication design, e.g. the book as format in order to share and activate urban futures scenarios) and a moment related to process management (referred to the creation of urban futures scenarios, e.g. workshop facilitation). This distinction will be maintained in order to ensure the optimal granularity and texture to the final clustering, reflecting the empirical study of the Central Phenomenon and the overall architecture of this PhD.

Grounded Theory Clustering

Within a design-led urban futures generative process, "Design" acts as intellectual partner in a multidisciplinary platform, while "design practices" and a para-scientific, analytical, repeatable tool act as multidisciplinary integrators.

Structural Moment (related to Communication Design):
Design as intellectual partner in a multidisciplinary platform

The program is visually attuned to design modalities of representation of the future and offers a relevant liminal space, where it is perceived as individually reflexive for involved stakeholders. The liminal space of the program is enabled by its self-generative flexibility and scalability, with structural moments of communication (e.g., book), which might assume a leadership status as specific design standard within their industry of reference

Practice-focused Moment (related to Creative Process management):
"Design practices" and the matrix as multidisciplinary integrators

A "scientific discourse" modality within the program is exercised by means of a para-scientific, analytical, repeatable tool; the urban futures matrix. The matrix is leveraged in workshops, where sketches are generated, representing concepts, that are managed by designers to generate urban futures storylines. The program is strongly perceived as an "outside-in" performance of collective and participatory nature, with higher intellectual value. External experts (thought leaders) contribute their insights, while concept design workshops engage professional stakeholders, offering them the possibility to lead in creation within teams. Although excluding non-professional stakeholders, the program progressively opens itself to wider circles of participants.

The final Grounded Theory clustering above might be leveraged to both describe as well as further generate rules or guidelines for the execution of design-led urban futures program like city.people.light. At applicative level, new hypothesis of how either new editions of city.people.light class of programs, or spin off applications might be generated following the textual indications above, leveraging the flexibility and scalability of the approach. Such developmental purposes might represent next steps where the theoretical explorations and empirical analysis of this PhD study might find conversion into new cycles of extra-curricular design.

9.3) KEY RESEARCH QUESTION

As closure to the generative part of this PhD study it is appropriate to go back to the original Key Research Question as formulated in Chapter 5, on the basis of the bibliographic review of Chapters 1 through 4 within the epistemic principle of constructivism and with a mixed-method approach as a methodological choice, focusing on Grounded Theory as primary constituency:

"How does a design process help to envision (preferable) futures for cities, under postmodern conditions?"

As the question itself might suggest, it should be reiterate how its purpose was not to generate a "description" of what "Design" intrinsically is, whereas to demonstrate the role

of a postmodern design process (High Design) in generating urban futures scenarios. The answer to the Key Research Question at the basis of this PhD study can be articulated by combining different constituencies in the Final Grounded Theory cluster above. In order to provide transparent synthesis, one might structure the following short list of granular points:

A postmodern design process helps to envision preferable urban futures:

- a) by positioning "Design" as intellectual partner in a multidisciplinary platform;
- b) by leveraging "Design practices" as multidisciplinary integrators;
- c) by enabling the generation of visual representations of the future;
- d) by delivering structural moments of communication that convert in leadership;
- e) by including para-scientific, analytical, repeatable tools;
- f) by enabling the facilitation of workshops for collective visual generation;
- g) being specified as externally oriented, with a strong participatory approach;
- h) by enabling generative flexibility and scalability over time;
- i) by developing along lines of progressive stakeholder inclusion;
- j) by adopting teamwork as key operational modality.

These distinctive points summarize a number of findings and indications based on theoretical, empirical and generative elaboration. However, the do not represent "rules" with repeatable validity. They contribute to capture how city.people.light might be described as a generic process for design-driven urban futures, from organizational requirements to thought leadership *(face-to-face conversation with H. Mommaas, J. Rijsman, October 2014)*. As anticipated above, within these 10 lines, lies the possibility to further develop rules and guidelines, in order to determine prospect contextual extensions or spin offs of city.people.light, both within Philips, in continuity with the High Design legacy, as well as on a generic basis of postmodern design. From an editorial point of view, one might notice a partial semantic overlap, or at least a strong semantic continuity, across the specific "answer lines" d), g) and i). The reiteration of this specific motive, pertaining stakeholder participation and inclusive communication, should be simply regarded as an echo, or editorial reflex, of the relevance of such narrative line within city.people.light, as discussed through interviewing and as emerged through empirical coding. In this respect, the PhD researcher treated the recurrence of this topic in these formal PhD conclusions as a *fait accompli*, determined by the nature of the observed and processed data, and not as a defective styling point in terms of editorial control.

Having reached the point of maximum synthesis, in terms of addressing the Key Research Question, the paragraphs to follow will entail:

- validation of these 10 points, to substantiate their value as empirical-based findings;
- gap review, to identify and articulate key "weak spots" in the overall PhD conclusions;
- theoretical review, to contextualize the overall PhD conclusions to nine bibliographic sources, as examined in Section I.

It must be specified that the below paragraphs will simply clarify and specify conclusions, that in the above formulation are generated by the entire empirical process. Single codes, Transitional Propositions or other empirical references will not be repeated. In particular, it should be reiterated that the editorial structure of the PhD is linear and

requires sequential experience and absorption of each chapter in the sequence provided, as the PhD manuscript was not designed or intended with multiple entry point navigation.

9.4) GENERAL REFLECTION AND GAP REVIEW

9.4.1) General reflection

The following reflection points might be formulated as referred to the specific statements embodying the answer in 10 lines to the Key Research Question. With a focus on the creation and communication of urban scenarios, embodying the notion of urban futures, by adopting and deploying postmodern design (High Design); the below notes will offer the opportunity to clarify:

a) the role of High Design in generating urban futures scenarios;
b) the position or potential of any specific "practice" of "design" or "designer moment".

9.4.1) positioning "Design" as intellectual partner in a multidisciplinary platform

Also a possible offspring of Northern Italian academic circles (Domus Academy), High Design was conceived as an approach to corporate design management with a strong background in intellectual roots, ever since an indirect reference to the seminal 1960's postmodern architecture milestone, Robert Venturi's *"Learning from Las Vegas"*, in the very title of the first High Design manifesto, *"Flying over Las Vegas"* (1991). As indicated by Gergen (2014), the crucial aspect of researching the future might be to make it happen, impacting "the real", instead of mirroring "world as is". In order to do so, in 1996 the "multipurpose strategy" was devised on occasion of city.people.light first edition, as a further applicative extension or complementary execution within High Design, leveraging innovation opportunities at all levels and horizons, but also in terms of marketing communication and public relations, with the ambition to gain visibility and influence through reputation building and valorization. The intellectual prestige of Philips Design as "design organization" appears peculiarly relevant when targeting the architectural world, where excellence in craftsmanship has been historically complemented by a theoretical side, with top architects acting as *maître de penser*. It is through the extension of "design" into humanities, social sciences and other disciplines claimed by High Design within the perimeter of postmodern design, that the intellectual profile of Philips Design as "the" design agency was incrementally raised to become a credible partner both for Philips business units as well as external actors in urban design. Here, the "designer moment" is intrinsically represented by the specific *"savoir faire"* and ability of designers to connect different fields of expertise. Such ability is based on formal training where a diverse portfolio of competences can be not only managed but even integrated in one curriculum, from theoretical and sociological disciplines to technical and applied competences. Thanks to such *"savoir faire"*, "Design" appears more suitable than engineering or fine arts to exercise a "primus inter pares" role in the development of urban futures.

9.4.2) leveraging “Design practices” as multidisciplinary integrators

By “design practices”, it should be herewith intended a number of specific operational modalities and activities enacted by designers in their formalized and informal professional spheres, e.g. workshops or visualization. In layman’s terms, “Design practices” comprise everything that designers do in terms of both “designer moments”, that is specific to their formal curriculum. Of course, such practices might not be exclusive to “Design” and “designers”, as representatives from more professional fields perform workshops, work with visualizations or other (High Design) constituencies as identified so far in this PhD study. Once again, it appears reiterated in postmodern design discourses to integrate diverse disciplines, leading to communication and meaning-making through simplification. Designers achieve this thanks to the specific feature of being action oriented, working towards the pragmatic implementation of their ideas beyond speculation, as any architect knows from their natural compulsion to build (Sudjic). Designers, as typical “T professionals” do leverage integrative abilities across a wider spectrum of topics and disciplines, as mentioned above. In continuity with the above notes, it can be reiterated how multidisciplinary diversity is an intrinsic feature, even a *raison d’etre*, of High Design since its very formulation (Marzano, 1991, quoted by Kusume, Gridley, 2014). The complexity and contradiction of urban futures requires the ability to both generate and integrate input from as diverse as possible disciplinary fields, from digitalization to anthropology.

9.4.3) enabling the generation of visual representations of the future

The power of the image was introduced as a key reference for futures research by a number of key prominent scholars (Polak, Slaughter, Fry). Semantically, one might notice the proximity of the “visual” with “visioning”, the latter being a futures research process tasked with establishing a vision of the future, as a reference to comment on this third line. While Gergen (2014) expressed a key concern about the ocular centrism of social research, the potential impact of visual meaning-making and iconic simplification for communicative purposes was identified as relevant from a viewpoint of both foresight as well as in terms of design. For designers, the visual dimension is a key constituency of the wider experiential and sensorial modalities of both knowing the world (design research) and creating (for a) a new world (design-led innovation), in terms of “autopoiesis”. Once again, visual techniques are not exclusive to the domain of designers. However, it cannot be denied that designers eminently focus on such techniques as a central feature of their professional strategies, perfecting their technical means to leverage them across their entire portfolio of expressions, from representation of their conceptual thinking (e.g., sketches) to the actual delivery to commercial markets, based on innovation roadmaps (e.g., new product lines, at first visualized in renderings to be then mathematically realized through CAD, towards production). Here, High Design as postmodern process innovatively connected sociological reflection and research on the future to visualization practices, naturally available in its portfolio. Hence, closing the loop between future-making and futures research, by means of visual articulations.

9.4.4) delivering structural moments of communication that convert in leadership

A future vision that is not effectively communicated to stakeholders and other relevant audiences, for conversion into change, will simply remain a speculative hypothesis, at best for archives. From the viewpoint of actionable research, specifically of research with the ambition to translate future insights into an impacting outcome in the world, it was already reflected above on the relevance of intellectual thought "leadership". What "designers" specifically contribute from this peculiar viewpoint is the communication competence itself, once again a natural feature in their portfolio in terms of education, tradition and trade. Communication should be herewith intended not only in the above terms of visual representation but in the wider sense of structuring information, including editing, messaging and planning specific interactive or unilateral moments of transmission and dialog over time. It must be noticed how this peculiar point plastically represents the possibility for non-designers, e.g. strategic marketing executives, to operate on city.people.light as a High Design specific adaptation. Hence, to appropriate and lead a design process from the viewpoint of complementary managerial competences. In this respect, city.people.light empirically exists through a number of constructed representations, where it is eminently associated to High Design, Design Thinking, design practices, design in general terms and designers in terms of leadership and co-creation. However its 2007 and 2014 structural communication moments, namely the books, were "designed" under the ultimate direction and decision-making of markerteers. While High Design historically claimed or "colonized" disciplines and practices as varied as sociology or anthropology, it might be noticed how, since 2007, Philips Design as a design organizational entity was not in the lead with the design direction determining the look and feel of the longest lasting city.people.light reference manifestation to all involved stakeholders, namely its books.

9.4.5) including para-scientific, analytical, repeatable tools

It cannot be stressed enough how the multidisciplinary nature of High Design enabled claiming new humanistic and sociological territories within the postmodern portfolio of what used to be the industrial design department in a High Tech corporation. The adoption of new methods and tools, mutated from these domains, translated into an operational extension and a strategic amplification of such "design portfolio", intended as the totality of methods available to the design service unit to perform its consulting tasks. The case of the matrix appears representative of such inclusive dynamics, as the Urban Futures Matrix was originally rooted as a possible analytical structure in social sciences (e.g., Castells) and, from this specific social sciences viewpoint, delivered to Philips Design by a qualitative futures research specialized firm (Future Concept Lab, Milan). The matrix enabled Philips Design first (1996, 2007), Philips Lighting later (2011-2013) to perform the necessary multidisciplinary analytical procedures, while offering the para-scientific continuity to the process, resulting in perceived repeatability over time. Because the notion of Gergen's "endurance" within sociological research (Gergen, 2014) is herewith replaced by the equivalent function of "business success repeatability", the matrix represents one of the most robust elements as a component of the High Design methodological corpus of city.people.light formalized tools, as appraised at all levels (theoretical, empirical), for multiple purposes (analysis, communication,

validation). If urban futures scenario aim at inspiring change a reference tool like the urban futures matrix might provide the necessary enabling framework for participatory dialogs to take place across disciplines and networks of various and diverse nature. Being integrated in High Design, the matrix should be fully considered as a "designer's tool", although one imported from a different knowledge field.

9.4.6) enabling the facilitation of workshops for collective visual generation

Visual generation was already commented above as a key feature in terms of design-related capabilities. However, in this case it should be mentioned how the visual articulation of ideas, insights and concepts enables sharing, discussing and converging in terms of collective creative processes, in workshops. Just like the matrix, the workshop format (Jungk, 1987) was not originally developed as part of a design portfolio, nor did workshops represent any universal "design format", since in specific regions cultural or regional settings they appear to be more frequently adopted than in others, within creative industry processes. Workshops are nevertheless a structural feature in the consensus-based culture of Royal Philips NV, as perhaps influenced by the Dutch organizational cultural modality of collective decision-making. In this respect, it was mentioned in Chapter 4 how Philips Design developed an outstanding hybrid cross-competence ability to run innovation processes since the 1960's. When "wild cat" multidisciplinary teams would entail the collective contribution of scientists, engineers and designers, supported by visualizers of the caliber of science fiction illustrator Syd Mead. Once again, High Design accentuated this specific portfolio feature, as its multidisciplinary, multicultural interpretation of postmodern design competences and processes required collective collaboration since its inception, hence the workshop as key operational modality. Such ability to generate consensus should be regarded as valuable in terms of urban futures generation, given the complex and varied mixes of stakeholders that might naturally represent city audiences, both plain citizens and actual influencers or decision makers.

9.4.7) being specified as externally oriented, with a strong participatory approach

In natural continuity with the above reflections, and as an extension of their implications, it was assessed how city.people.light is strongly characterized by an external orientation with respect to the (corporate) business unit. Namely, one of its first and foremost characterizing features in process terms is its communicated status of "open platform". Where, stakeholders are invited to participate with a moderation that does not directly translate into commercial propositions. In these terms, the nominal ambition of the program is to connect various individuals and networks in the professional field, eliciting a sense of participation based on co-creative motives (that might turn into recurring litanies). Once again, High Design might be seen as a postmodern point of origin of this line of "thinking design", a line that might have partly anticipated current evolutions of "Design" into urban *"agency"* (Stoner; Vallo, Sadovsky; Awan, Schneider, Till). Such evolutions might imply early signals of potentially dissolving design specific business model (commissioned and applied work) or specificity (beyond technical competences) into social innovation experimental practices, with a shift from *"Trained Judgment"* principles to collective or at least

participatory decision-making. The rising popularity of social innovation, social design and other similar "sub-branches" of design within the creative industry and urban contexts might be identified as a potential proof point of the advanced nature of High Design in terms of long term relevance, considering the principles of this approach were defined in the early and mid-1990's.

9.4.8) developing along lines of progressive stakeholder inclusion

As a further extension and reinforcement of the above conclusions one might empirically notice in city.people.light subsequent editions a progression in the opening up of the urban futures platform to an increased variety in professional background of external stakeholders. From thought leading architects and top city managers only in 1996, to global leaders in lighting design in 2006, to regional experts and country-based professionals in the European cycles in 2011 – 2013. Additionally, in terms of technical expertise, the program progressively opened up to application specialists, who enabled the prototyping simulation resulting in European mock-ups. One might conclude, that urban futures scenario generated within the city.people.light format were increasingly the product of more diversified selections of stakeholders, from the relatively monolithic approach adopted in the 1990's to a more inclusive openness of the mid 2000's, always within business to business domains. The direct involvement of citizens was however assessed as not relevant or even feasible, however being somehow idealistically desirable in terms of "Design Thinking". However, one practical concrete situation, the Wroclaw workshop of "Architects of Light", exceptionally saw such citizen inclusion, although limited in terms of interactive modality and decision-making power. In general terms, in spite of Design Thinking principles, it might be highlighted how "Design" is not necessarily the specific competence to drive increasing stakeholder inclusion, nevertheless High Design has been positioned as "people focused" since its inception. One might see the progressive extension of stakeholder inclusion as an indirect manifestation of the early ambition to re-balance the (positivist) scientific and engineering ethos of the corporation, by adopting a number of humanistic traits and practices.

9.4.9) enabling generative flexibility and scalability over time

One might identify these qualities as hygiene factors for "Design" to be leveraged in urban futures, hence not specific discriminators or proprietary features yet required enabling conditions. Both futures research (Bishop, Hines) and design are managed according to the operational unit of "projects", organizing their competences for the purpose of generating and managing "knowledge" (Grudin), with the purpose to complete and ship "deliverables" over a certain period of time, demonstrably reaching at least the standards set by key performance indicators and quality indexes. High Design offers the modularity of an approach based on specific phases (Initiation, Analysis, Concept, Finalization, Evaluation), complete with KPI's (although the latter might be actually derived from the larger corporate context, e.g. Net Promoter Score). An equivalent modularity might be defined from bibliographic theory of foresight, when assembling a number of futures research tools (Monitoring, Interviewing, Workshop Management, Scenarios creation), "standing for" the analytical components integrated in High Design. Although flexibility and scalability of a generative process are yet again

no specific prerogatives of “design”, it might be noticed how such characteristics were enabled within a High Design-based portfolio of programs and events, from global commitment to thought leadership, to local marketing tactics.

9.4.10) adopting teamwork as key operational modality

With this last line, it is possible to close this reflection going back to the essentials of “Design” as a process, as recorded in Chapters 3 (Munari) and 4 (Marzano). Teamwork appears a historical feature of design and architectural practices and High Design with its *“multidisciplinary, multicultural turn”* might have only added to this specific constituency of the process. Also, “teamwork” appears as a natural approach for urban futures as well, as already detailed above. It might therefore be possible to consider this specific outcome of the conclusions as a second “hygiene factor”, where “Design” might find its enabling conditions but not necessarily a major point of specificity.

In extreme synthesis, it is possible to conclude that a “Design” process under postmodern conditions of operations might help generating urban futures by integrating multidisciplinary, multicultural competences and contributions, triggering collective and participatory creative processes that involve multiple and diverse stakeholders, resulting in visual outcome to be structured at given moments in time, with the purpose to establish intellectual leadership. Flexibility, scalability and teamwork appear qualities responding to general design project criteria, however they do not result in any specificity when related to “Design”. Therefore, they might be considered more hygiene factors than actual discriminators. In general terms, these characteristics and constituencies, here presented as conclusions of a research procedural path, might not be specifically attributed to “Design” as a generic competence. However, their complementary presence as uniquely qualified city.people.light constituencies was assessed as mission-critical in High Design being declined as a multipurpose urban futures application over two decades.

9.4.2) Gap Review

Before completing the PhD conclusive chapter, the above clustering and the subsequent articulation of a stratified answer to the Key Research Question might be critically reviewed, by comparison and contrast with earlier lines of reflection developed across this entire PhD study. In particular, five possible points of potentially critical review, based on what is presented so far or on potential implicit expectations, as also evidenced in dialog with the promotors of this PhD, will be shortly addressed, with the purpose to provide an explicit clarification and transparent comment:

9.4.2.1) An eleventh line to address the Key Research Question was drafted as: “Design” plays a role in generating urban futures *by enabling the creation of a space for individual reflexivity referred to lighting design.* Such 11th line of conclusion was created on the basis of the first Sensitizing Concept, and particularly on its Transitional Proposition indexed as: *“9.2.3.4 Primary: The program enables stakeholders to engage in personal reflexivity on the lighting design professional practice”.* The final decision not to include this specific argument into the ten lines above was autonomously taken by the PhD researcher at the level of final revision of the study, based on two educated criteria: a) the notion of “personal reflexivity” appears as highly individual and rather introspective, hence challenging to rationalize; and b) the scope of this impact of a

"urban futures design program" is herewith restricted to the "lighting design" field. Hence, its applicability is rather limited in terms of sectorial specialization. Because of these two limitations, taking into account the development that a Grounded Theory approach might elicit, it was abductively evaluated that such additional line of argumentation was not to be included in the clustering above;

9.4.2.2) Networking dynamics identified by bibliographically investigating city.people.light are not represented in their granularity within the Grounded Theory Cluster above, e.g. there is no explicit clarification of the switching functions and of the nature of barter, as earlier theoretical and empirical analysis instead presented. This might be presented as the most structural point of weakness in the final clustering, however it might also be a direct consequence of the lack of available references in the three Sensitizing Concepts. One might argue that –on the other hand- no major denial or controversy was detected about the bibliographic and empirical relevance of this motive, implicitly confirming, or at least not discounting, the relevance of this peculiar aspect of the analysis. Perhaps, the "networking" motive might be intended as an implicit texture in the (theoretical) canvas behind the Grounded Theory Cluster?

9.4.2.3) The aim to generate "preferable futures" is not presented as explicit in the concept -regarding the "preferability" aspect- as it does not naturally emerge from the answers to the Key Research Question. This specific High Design requirement might be considered as a peculiar historical trait connected to the 1990's and 2000's context of city.people.light, more than a theoretical or methodological feature of how "Design" might contribute in generating urban futures. Whereas High Design prescribed this specific requirement, the future of cities in terms of possible scenarios remains open to the development of both utopian as well as dystopian scenario concepts;

9.4.2.4) Granularity and differentiation of socio-cultural drivers (horizontal axis of the Urban Futures Matrix, as described in Chapter 4) from trends is not reported within the concept, as being weakly reported or absent at earlier stages, from theoretical review to empirical analysis;

9.4.2.5) As anticipated in the introduction above, a last point of attention is the specificity of conclusions with reference to "design" and "designers". Although references to "how" design functionally contributes to generating urban futures have been specified as the ten answers to the Key Research Question, the "designer moment" as dissection of "what" a (postmodern) design practice supposedly must entail (or not) are not the priority in this conclusive Chapter 9. This point requires a deeper level of reflection, considering its absolute relevance in the context of the Central Phenomenon, as raised by one of the promotors of this PhD study in one phase of revision. Firstly, it might be recalled how the topic of "Design" (intended in its generic definition) and its role within city.people.light were not just bibliographically described but duly researched at primary research level, namely by means of an entire specific "question cluster" within the item list regulating all expert interviews, as specified in Chapter 5 and as reported in Appendix D, under the section 7 of the original document (hence the 7. Index sequence):

7.1 how was "Design Thinking" leveraged in this program and why?
7.2 what was the role by design in connecting the program to people futures focus?
7.3 what was the role by design in translating technology into program assets?
7.4 what was the role by design in translating program findings into company assets?
7.5 what was the role in determining unique qualities of the workshop and why?

7.6 can this program be defined as High Design and why?
7.7 could you provide any documental evidence to support any / all above answers?

In this respect, empirical data were gathered and analyzed, assessing the actual response of the purposive sample involved in the PhD study, ultimately generating the "Design"-specific coded propositions that have been presented as final remarks of Section III and leveraged to reach the above ten conclusive points. Secondly, it must be considered how, at micro-semantic level, the specific nature of organizational circumstances, with Philips Design being naturally identified as "Design", might have generated a bias in empirical data gathering, where respondents interpreted the below question list as referred to the global service unit of Philips, instead of the general agency. A number of hypotheses might be therefore proposed as explanation of this peculiar outcome:

a) in relationship with the primary research, since the purposive sample was homogenous with "Designers" at its center, it might be proposed that designers themselves do not naturally tend to problematize the nature of design processes, and their role in them, taking the latter for granted. In this respect, the resulting gap might be the natural by-product of postmodern conditions of dialog and enquiry, and the potential result of the constructivist approach;

b) more in general, just like the existence of any invariant "research object" should be considered as "false" in humanities or social sciences, the "design" field at the (postmodern) time of performing this PhD is shifting, with "designers" increasingly claiming new areas (e.g., humanities, social innovation, futures research). The specific professional specificity in terms of biographies, curricula, identity might actually be diluted as a collateral effect of such professional expansion;

c) as foreshadowed and reiterated in more paragraphs above, it must also be highlighted how this PhD study itself, at the level of its original intent and aspired focus, never aimed at addressing "design" in generic terms but focused on High Design as a specific postmodern creative industry approach. In this light, with the functional purpose to selectively introduce a robust background, a great quantity of information about "designers", "design" and its constituencies was accumulated in Chapter 3 and especially in Chapter 4, where High Design is presented. Besides such background on "what design is", the PhD researcher evaluated a further investigation along these lines as not relevant for the purpose of addressing the Key Research Question. The final thematic mix of the Grounded Theory Cluster is therefore direct and natural consequence of precise and fundamental choices at research level, from the moment of conception of this PhD.

The PhD researcher considers this relatively unexpected (at times) exclusion of topics and details otherwise investigated as central, to be a natural consequence of the theoretical, methodological and empirical strategies adopted, from the selection of an exploratory approach in the empirical data gathering (interviews). At editorial level, the points of attention as identified above might have been addressed and optimized, artificially expanding the current concept with a few lines or even one word, in the specific case of "preferable futures". Nevertheless, such a solution would have breached the integrity of the Grounded Theory methodology and be dystonic with the constructivist principle, as it would have created an ungrounded extension to the conclusions empirically distilled from the reference universe defined by data coding procedure and

transitional constructs. The above gap review clarifies in reflexivity and reporting terms how the PhD researcher is aware of the possible limitations and criticalities within the outcome of his analysis, hence offering due elements for conclusive evaluation.

9.5) THEORETICAL REVIEW

This final paragraph has the purpose to provide additional and conclusive cross-referencing across bibliographic theory and empirical conclusions, leveraging constructs that emerged as relevant to the understanding of the field in the execution of this PhD. The intent is twofold: a) firstly, consolidation and commenting of the Grounded Theory Cluster, b) secondly, identification of any specific area that might still benefit from additional theoretical referencing. Such aims will be pursued by concisely analyzing how the Grounded Theoretical cluster "performs" versus nine bibliography-based constructs, identified by the name of related author(s) and by the reference to the specific theoretical Chapter of pertinence, indexed by a sequential number. It is not the purpose of this paragraph to verify the semantic extension and reach of the Grounded Theory Cluster itself, whereas its discriminatory capacity in terms of verifying the overlap between its constituents and selected models will be reviewed from theory viewpoint as well. Where additional knowledge sources will be leveraged, due transparency will be provided. An indication of "compliance / partial compliance / non-compliance" will be provided as a means of preliminary evaluation and synthetic reporting. With such an indicator, it will be possible to immediately appreciate the potential fit between specific items or details in a theoretical construct and the Grounded Theory Cluster. A concise explanatory clarification is provided as closing comment for each and every theoretical model. This specific choice will guarantee an overview of conclusive remarks with the editorial quality of maximum completeness and granularity, as due at the end of a PhD study.

9.5.1) Habermas / Kuosa (Chapter 1):

Knowledge Dimensions – Reference: Kuosa:

a) *Predictive / empirical dimension: a more deterministically attuned study of hypothetical futures that are assumed as possible to be known* (Kuosa, 2012, p.32)*,* matching: *the empirical-analytic approach with a technical means-end interest* (Kemmis, in Reason, Bradbury, 2004, pp.91 - 92) - **compliance***;*

b) *Cultural / interpretive dimension: a language-based, comparative generation of cultural insights into possible future human conditions, with a more relativistic accent* (Kuosa, 2012, p.32), matching: *the hermeneutic-interpretative approach with a practical interest* (Kemmis, in Reason, Bradbury, 2004, p.92) - **compliance***;*

c) *Post-structural / critical dimension: a paradigm-lifting exploration of futures beyond current discourses of epistemological understanding, asserting the fragility of the present and its dependence on ways of knowing* (Kuosa, 2012, p.32), matching: *the critical approach, with an emancipatory interest* (Kemmis, in Reason, Bradbury, 2004, p.92) – **non-compliance***.*

The Grounded Theory Cluster responds to this first validation passage with agility and elasticity. The reference above provides methodological principles that should be

considered universally applicable to design-led urban futures programs. Hence in principle, knowledge within all three above different taxonomic dimensions should be a feasible outcome of the related process. It might however be important to highlight how it is possible to identify in the empirical materials a high quantity of references to the "predictive/empirical dimension" (e.g., in terms of KPI's related to roadmap conversion) or the "cultural/interpretative" dimension (e.g., in terms of Horizon 3 innovation concepts and related sketches). It might be additionally observed how the presence of a fixed framework through the entire process, the Urban Futures Matrix, and the general context of corporate, industrial and applicative nature of city.people.light might have significantly mitigated any potential expansion of the approach towards a *"post-structural/critical dimension".*

9.5.2) Bell (Chapter 1):

Critical Realism – Reference: Bell:

d) *"a posit is a statement that we treat as true although we do not know whether it is so… Posits include statements about the future on which people might or could act appropriately if certain circumstances were to prevail"* (Bell, 1997 – 2003, Vol. I, p.224) - **compliance**;

e) *"knowledge surrogates refer to posits about the future that have survived serious procedures of falsification and that therefore can be elevated to the status of conjectural knowledge… under the condition that this warranted assertability is not confused with "truth" tout court"* (Bell, 1997 – 2003, Vol. I, p.225) - **compliance**;

f) *"ultimately and more complexly, the prediction of an undesirable future might influence people to change their behavior: …this is the "self-altering prophecy"* (Bell, 1997 – 2003, Vol. I, p.229) – **partial compliance**.

With respect to the above critical realist taxonomy, it might be possible to review the Grounded Theoretical Cluster with the following outcome:

- posits = visual sketches at the moment of collective creation, on the basis of matrix (the matrix including itself verbal posits in the form of insights based on integrated thought leaders' interviews);
- knowledge surrogate = general urban futures motives, concepts and sketches from the moment they are validated by editorial selection for structural moments of communication (e.g., books)
- self-altering prophecy = possibly enabled by the leadership expressed by the structural moments of communication (e.g. books) over time and, additionally, outside of the boundaries of the Grounded Theoretical Cluster, validated by the 1% to 5% concepts (as referenced in the coding materials) that convert into product roadmaps and new products or equivalent impact in the reality of built environment in cities.

It might be concluded that there is an optimal fit between the Grounded Theoretical Cluster and the above classification by Bell, however just based on a preliminary and limited validation. However, not all required information could be considered consolidated by validation at an appropriate level of granularity (e.g., 1% to 5%

conversion rate is an empirical insight derived from interviewing, without further assessment in the product innovation portfolio, according to the primary research process as governing this PhD).

9.5.3) Friedman (Chapter 2, introduction)

Action Science requirements – Reference: Friedman, in Reason, Bradbury

a) *Creation of self-reflective communities of inquiry within communities of practice (Friedman, in Reason, Bradbury, Eds., 2001, rep. 2004, p.160)* – **non-compliance***;*

b) *Reflexive nature of the theoretical thinking, with the fieldwork and practice as starting point thereof (Friedman, in Reason, Bradbury, Eds., 2001, rep. 2004, p.160)* – **partial compliance***;*

c) *Mixed interpretation and testing, in an open dialog and transparent availability to all parties involved when it comes to sharing data and insights (Friedman, in Reason, Bradbury, Eds., 2001, rep. 2004, p.161)* – **partial compliance***;*

d) *Creation of alternative scenarios, whereby the status quo is challenged on the basis of shared socio-cultural values within the communities of practices at hand (Friedman, in Reason, Bradbury, Eds., 2001, rep. 2004, p.162)* – **compliance***.*

It has already been foreshadowed, on the basis of bibliographic reviews in Chapter 4 that the city.people.light approach does not offer the minimal requirements to be classified as *"Action Science".* This is mainly due to the lack of feedback loops functional to enriching its theoretical foundations, being the High Design "evaluation" phase built on corporate requirements only. It remains a challenge to identify what could be the necessary development effort to raise the profile of the approach, as based on the Grounded Theoretical Cluster, towards a higher degree of postmodern action-oriented scientific sophistication. When filtering the concept distilled from empirical analysis within the above taxonomy as if the latter was an assessment tool, one might conclude:

- although grounded theory conclusions display a progressive inclusiveness of new stakeholders and an intrinsic flexibility and scalability, it was clearly indicated in the empirical findings that no communities of practice are generated by this program – **non-compliance**;
- although the empirical conclusions contemplate reflexivity, as critically discussed in point 9.4.1 above of the gap review, it must be reiterated how such reflexivity is eminently of individual nature and related to applicative domains, e.g. lighting design – **non-compliance**;
- although the process is perceived as highly collaborative and integrative, it must be highlighted that structural boundaries are set and reiterated by adoption of the matrix as a mediating tool between thought leaders' insights and workshop participants, with mixed interpretation and testing being encapsulated in workshop phases – **partial compliance**;
- alternative scenarios sometimes emerged, as minority reports or weak signals, however in absence of communities of practice to report them to for further processing, excluding temporary formal and informal networking aggregations – **partial compliance**.

It should be noted how the Grounded Theoretical Cluster required integration by earlier insights in empirical findings to be assessed on the parameter: "communities of practice", confirming the relative weakness of the overall "networks/networking" motive in these grounded theory conclusions. It can be concluded that the earlier theoretical assessment at preliminary level was correct in its appraisal, indicating the substantial non-compliance of city.people.light as a postmodern design-led urban futures approach versus *Action Science*, in spite of a para-scientific discourse articulated through the urban futures matrix.

9.5.4) Bishop, Hines (Chapter 2)

Futures Taxonomy – References: Bishop, Hines, Kuosa

a) possible future, anything that can conceivably happen on the basis of continuous trends and on the basis of continuity and consistency with the natural or behavioral laws (Bishop, Hines, 2012, p.51) - - this is also the domain of what might happen, including "minority reports" and unlikely scenarios based on *"wild cards", or highly unexpected events and unthinkable developments* (Kuosa, 2012, p.36) that futurists generate as disruptive possibilities on a "what if?" question basis - **compliance**;

b) probable future, the most likely future development, assuming that nothing unexpected emerges: *"It is expected and relatively predictable assuming nothing surprising happens* (Bishop, Hines, 2012, p.51) – **compliance***;*

c) plausible future: differentiated alternatives for future developments with reasonable chances to occur, should be the most plausible assumptions not to come true: *"A plausible futures simulation or alternative futures scenario is based on imagination and speculation, and mostly triggered by an event"* (Bishop, 2012, p.51) – **compliance***;*

d) preferable future, the most desirable futures based on people's values: "*Preferable futures are triggered by visioning and planning as generated in an empowered mode, defining sets of choices and new plans"* (Bishop, Hines, 2012, p.51), complementing or contradicting aforementioned past plans by setting developmental directions – **partial compliance***.*

At this stage, all four above modalities of futures knowledge appear feasible within the Grounded Theory Cluster. This might mean that a) such cluster is underspecified (negative interpretation) therefore open to any matching or b) that it offers maximum epistemological flexibility (positive interpretation). The ambition of High Design was clearly set to pursue visions and enact strategies towards "preferable futures". As reported in point 9.4.2.3) of the "Gap review" above, the Grounded Theoretical Cluster itself however does not specify such pursuit. It might be concluded that the Grounded Theoretical Cluster requires additional integration of specifications and detailing. Alternatively, by focusing on "Design" (High Design) as key Axial Coding category and semantic field addressed by the Key Research Question, such cluster might imply guidelines to regulate process and procedural aspects of the design-led urban futures program.

9.5.5) Kuosa (Chapter 2)

Normative versus Exploratory – Reference: Kuosa

- exploratory forecasting *focuses on what is possible and probable regardless of what is desirable. It tends to rely heavily on mathematical analysis and formal, quantitative trend forecasting, as well as extensive use of probabilistic methods, meaning that it rather suggests alternative outcomes: it begins pre-actively with the present as a starting point, it examines the various ways in which those forces and components may play out, and moves forward to the future, under the implicit assumption that the variables of interest are outside of direct control* (Kuosa, 2012, p.26) – **partial compliance***;*

- normative forecasting *is based on norms, values, aims and strategic goals; such goal oriented forecasting tends to take into account an organization's purpose, its mission, and most importantly its future achievements. It starts with a view of possible and desired futures even if not all the variables are under direct control. On the basis of the identified (alternative) futures, necessary actions are defined to attain specific goals, with possible discontinuity versus existing trends and with the adoption of qualitative methods and tools… Normative forecasting is not emotive political arm-waving but a detailed process of elaborate technique usable primarily in organizational or governmental planning* (Kuosa, 2012, 26) – **compliance***.*

Firstly, it must be clarified how semantically the term: "explorative" above should not be intended in its generic meaning as "quest for discovery", which might be fully applicable to city.people.light. Here, vocabulary and interpretation should be solely associated to the above definition of "exploratory" by Kuosa. Based on the absence of any quantitative research resource within city.people.light, it is an easy task to determine that the Grounded Theoretical Cluster does not fully pertain an "exploratory forecasting" as described above. These conclusions describe instead a program attuned to somehow humanistic modalities, with a liminal space of reflexivity where a positivist mindset is only represented at para-scientific level, by means of business repeatable, self-assessed enduring tools (matrix). The second part of the definition of "exploratory" by Kuosa might instead be generically applicable to city.people.light, in terms of its operational modalities: "…*it begins pre-actively with the present as a starting point, it examines the various ways in which those forces and components may play out, and moves forward to the future, under the implicit assumption that the variables of interest are outside of direct control".* Although the normative nature of the program is not explicitly asserted in the cluster, it might be logically implied. The most adhering theoretical reference recalling city.people.light might be the "mixed scenario approach", as described in this bibliographic quote, herewith reproduced:

"…"mixed scenario approach": this is a research strategy where exploratory scenarios are adopted in the course of a project: …this approach follows the idea that in reality we always have some background information of the theme before we start any research, and thus we always do have some work hypothesis, which affects the organization of our work: …in most cases, we mix normative visioning with other type of explorative work" (Kuosa, 2012, p.127).

A “mixed scenario approach” reflects the generative nature described in the Grounded Theoretical Cluster, while matching the external nature of the input by external thought leaders. In this respect, the program is explorative as it features flexibility and scalability, intrinsically, as its enabling hygiene factors. Once again, the Grounded Theoretical Cluster appears aligned to this intermediate description, however its content and details are not entirely sufficient to recognize a complete overlap.

9.5.6) Boerjeson, quoted in: Bishop, Hines, Collins (Chapter 2)

Generating versus Integrating Techniques – Reference: Bishop, Hines, Collins

- Generating techniques, functional *to generating and collecting ideas, knowledge and views regarding some part of the future, consisting of common data gathering techniques such as surveys and workshops* (Boerjeson, 2006, quoted in: Bishop, Hines, Collins (2007), 10) – **compliance***;*

- Integrating techniques, functional *to integrating parts into wholes using models based on… probability or relationship* (Boerjeson, 2006, quoted in: Bishop, Hines, Collins (2007), 10) – **compliance***;*

- Consistency techniques, functional *to ensuring consistency among different*
- *forecasts...* (Boerjeson, 2006, quoted in: Bishop, Hines, Collins (2007), 10) – **compliance***.*

As described within the Grounded Theoretical Cluster, the program can be directly verified as both generative and integrating, with a non-explicit accent on “relationship-based integration” where the relationships among a) thought leaders’ insights, b) sketches as generated in workshops and c) urban futures motives as communicated in structural moments are established, clarified and ultimately governed by the urban futures matrix. Any reference to “consistency” appears likewise implicit that city.people.light, as a “mixed scenario approach” requires this functionality to maintain continuity and coherence in context (e.g., in directly integrating modules normally described as qualitative research with modules expressing design creation) as well as over time (subsequent editions).

9.5.7) Kuosa (Chapter 2)

Future Signals Sense-making Framework – Reference: Kuosa

a) weak signals: *A1] novel observation disrupting the linear, which might be totally surprising, amusing or annoying to the researcher, and A2] interesting indication confirming the linear, e.g. that a value is increasing or decreasing within an observed phenomenon* – **compliance***;*

b) drivers: *B3] pushing drivers disrupting the linear, e.g. political top down decisions, and B4] pulling drivers promoting the linear, arising at grass-roots level from society* – **partial compliance***;*

c) trends: *C5] blockers of change disrupting the linear, e.g. bottlenecks, socio-cultural preconceptions, and C6] change processes promoting the linear, that can be proven on the basis of extrapolation* – **partial compliance***.*

Based on "insider" knowledge, hence to some degree on abductive basis, the PhD researcher can report how the urban futures matrix has been substantially stable since 1996, with a re-clustering re-design of socio-cultural drivers (from six to four) in 2007 and a specification of cells (title and scenario description per each cell) in 2011, plus refreshment of socio-cultural trends at both times, on the basis of qualitative expert interviews. It is, nevertheless, a feature of the Grounded Theoretical Cluster to affirm the flexibility and scalability of the approach. Consequently, in spite of potentially superficial similarities, it is not feasible to confirm or contradict the statement that there might be a number of similar functions and purposes in common between this Future Signals Sense-making Framework and the urban futures matrix. This is because the Grounded Theoretical Cluster does not prescribe the design specifications of such matrix, leaving openness for future variants in design and executions of this tool.

Having presented these preliminary aspects, it is due to examine the Sense-making Framework above in its separate constituencies, to seek further clarification of and validation for the Grounded Theoretical Cluster through this additional filter:

- weak signals: although not directly defined as such, one can interpret this specific function to be played by sketches, as future posits and workshop-based collective creation: in this respect, it is possible to assert that city.people.light brings a "futures research generative moment" at the very heart of a design process;
- drivers: this second constituency of the Sense-making Framework might be associated with the urban futures matrix itself, where socio-cultural drivers are directly represented (horizontal axis), although the semantic areas where Kuosa's "drivers" respectively lie, might not be entirely coinciding;
- trends: as in the case of "drivers", "trends" are associated with the urban futures matrix (horizontal axis), possibly a synonym of "drivers" from a semantic perspective.

A deeper validation is not feasible due to both a lack of sufficient granularity in the Grounded Theoretical Cluster, as well as deeper information missing about the Sense-making Framework, since Kuosa limited his presentation thereof to a sketch of few pages. An important integration to the information included in the Grounded Theoretical Cluster would be required in order to assess similarities between the Sense-making Framework and specific constituencies as seen in city.people.light. It must also be added how the challenge of detailing the specifications of futures research tools did not emerge as a priority in the empirical primary data gathering and, therefore, in its analysis.

9.5.8) Castells (Chapter 4)

Networks – Reference: Castells

a) *"programmers",* actors who own the *"…ability to constitute network(s), and to program / re-program them in terms of the goals assigned to the network"* – **non-compliance***;*
b) *"switchers",* actors who own the *"…ability to connect and ensure the cooperation of different networks by sharing common goals and combining resources, while fending off competition from other networks by setting strategic cooperation"*

(Castells, 2009, p.45) – **compliance**.

As anticipated in the "Gap review" above, the relationship between "Design" (High Design) and "network theory" in city.people.light is perhaps its most critical point of attention. Firstly, while there are several elements quoted in the analysis above that are directly available in the Grounded Theoretical Cluster, it must be reiterated and underlined how the "networks" motive is perhaps implied, surely not embraced by the final grounded theory construct of this PhD study. As based on empirical findings and their elaboration into grounded theory, it might be possible to reference the above description of networking actors, identifying the following alignment with the constituencies implied or referred to in the Grounded Theoretical Cluster:

- programmer: Although a complex quantity of resources have to be combined within city.people.light, one cannot fully identify its theoretical concept as complying with the description of "programmer" by Castells. In particular, the ability to constitute networks is not directly included in the competence portfolio of the design-led urban futures approach in object. Within the textual structure of the Grounded Theoretical Cluster, reference is made to multiple (individual or collective) actors –designers, external experts, professional stakeholders. At the same time, it is a reiterated empirical coded conclusion that city.people.light "circles" do not permanently consolidate into networks, while stakeholder networks can be temporarily accessed by inclusion in the city.people.light process – **non-compliance**;

- switcher: as based on empirical findings, participation to the program is by invitation only and it can be perceived as a status marker of professional quality, as determined by the implicit acknowledgement of participants as qualified to partake. In this sense, a "switching" function is intrinsic in the platform approach, where, as seen above, professional networks of different nature converge. From empirical findings, it is possible to identify the actual "switcher" function in the strategic marketing and country marketing functions within the business unit, the ones who determine the invitation list to each event. However, in a larger sense, it is the program as a whole, city.people.light in its entirety, to operate as a "switcher". Where the resources are a combination of the futures research insights by thought leaders and other relevant expertise offered by the corporate and business unit, with the individual talent and competence of each participant - **compliance**.

While switching mechanics work in great efficiency and effectiveness, one might conclude that it is logically impossible to program those networks that do not structurally exist. In the networking circulation of symbolic value and knowledge, empirical findings identified a balanced ratio in terms of exchange between: a) what the corporate and business entity offers, and b) what the brand and the enterprise actually receive as input for their next steps in product innovation as part of a multipurpose strategy, at each touchpoint, especially at each event as embodied by a workshop. Lastly, the working hypothesis (Chapter 4) that "Design" in society and culture might act as a metaprogram at macro-level is confirmed by the role of "Design" as intellectual partner, multidisciplinary integrator and context provider for the program in its entirety.

9.5.9) Futures Research Modular Process (Chapter 2)

Monitoring / Delphi / Workshop / Scenario – reference: own PhD study development

- "Monitoring" is an analytical approach aimed at gathering intelligence over time with specific focus but also at a more generalist level: in the analysis below, it will be addressed in terms of "scanning" methods and techniques plus the specific "wild card" tool, in order to clarify how this kind of research approach might generate knowledge to support futures explorations – **partial compliance***;*

- "Delphi Method" is a knowledge-generation approach based on structured or semi-structured survey research through expert interview design and performance: this method is a specific asset in the portfolio of futures researchers developed by futurists between the 1950's and the 1960's, and now at methodological state of maturity – as identified in earlier steps of this PhD study, city.people.light adopted some of the discourses related to Delphi but not its actual design, that remained based on qualitative interviewing techniques – **non-compliance** (on Delphi); **compliance** (on Interviewing);

- "Workshop Design and Management" is a facilitation technique aimed at regulating teamwork in dedicated sessions, with the objective to generate a shared space of negotiation for the co-creation of ideas, concepts and solution sketches through a process of communal understanding and mutual acknowledgement across different and diverse stakeholders - **compliance**;

- "Scenario" is a knowledge-activation and dissemination format, aimed at communicating and sharing possible, probable, preferable, utopian or dystopian futures through narrative structures and storytelling, by leveraging literary, rhetorical and expressive capabilities in the non-fictional context of a research program or project - **compliance**.

As a conclusive step in cross-fertilizing theory with primary research insights, the hypothesis of modular futures research process as sketched by the PhD researcher, on the *"bricolage"* basis of a collage of bibliographic sources and references, will be leveraged to evaluate the Grounded Theoretical Cluster in the most general sense, that of process design for the limited part of High Design "Analysis" phase, namely the foresight component thereof. In terms of alignment, one might structure the review as follows:

- monitoring: in the first instance, an equivalence might be identified between a) this bibliographically extracted "monitoring" module and b) the "outside-in" processes of this design-led urban futures program (by means of interviews, workshops and feedback loops). Within the Grounded Theoretical Cluster, "monitoring" might be more specifically associated with external expert interviews, although not explicitly – **partial compliance**;

- Delphi Method: it was already identified, on the basis of "insider's insight" and partly from empirical findings, how a compliant adoption of this technique did not take place in 2006 and 2011–2013, hence leading to the adoption of Interviewing as qualitative technique. Whereas in 1996 it is impossible to reconstruct the process specifications at this level of detailing, which is a perfect demonstration

of the epistemological reason why the 1996–1997 edition was excluded from the focus of the "research objects" – **non-compliance**;

- workshop design and management: between the above definition and the same elements thereof included in the Grounded Theoretical Cluster, it might be concluded that an optimal level of alignment exists – **compliance**;

- scenario: references to scenarios were made across the entire PhD study, however culminating in a rather vague reference to "urban futures storytelling" within the concept, plus the strong awareness that visualization techniques and products (sketches) assume equivalent functional purposes of scenario writing, of course with different communicative impact - **compliance**.

It might easily be concluded that the design-led urban futures approach articulated by the transitional proposition is mostly focused on the "workshop design and management" module as described above. Additionally, city.people.light opted for highly customized qualitative interviews while de facto incorporating as futures research phase the organic dialogs with stakeholders that take place in workshops. Additionally, the same qualitative interviews (with the same potential argument of the integration within the workshop-driven design processes), partially respond to the purposes and description of the "monitoring" module. Lastly, visualization and sketching might exercise a role and deliver an outcome that is partially aligned with those of scenario techniques, although the latter is based on textual output, with a strong balance on "Design" modalities of articulation and knowledge management.

9.6) TECHNOLOGY PARADOX: ANCILLARY ANALYSIS

As referenced in Chapter 3, one might have proposed with Flusser the following statement as a challenge to be probed within this PhD study: *"In contemporary life, design more or less indicates the site where art and technology (along with their respective… ways of thinking) come together as equal"* (Flusser, 1999, 19). As articulated in the same Chapter 3, the continuum devised in the early 1970's by Bruno Munari (Bevolo, 2009) to define the mutual position of "designers" as opposite to scientists, engineering, stylists and artists might be considered the starting point of this reflection on the interdependences between "Design" and technology, in spite of DeCerteau's assessment of the "engineer" as potential intermediate professional between artists and scientists:

Rationality >> Scientist >> Engineer >> Designer << Stylist << Artist << Intuitiveness

As much as it proved useful in the context of this PhD, this preliminary linear scheme above will not be the sole reference to close this conclusion, as it must be considered how: *"… systemic accounts of relatedness augment the dialogues of responsibility in profound degree… More specifically, we are also invited by systemic accounts to multiply the discourses of exploration"* (McNamee, Gergen, 1999, p.17). Such general principle will be applied within this reflection on the "High Tech paradox" within city.people.light. It was anticipated in Chapter 1 how scientific networks should be analyzed as extended beyond the "human factor", to include machines, computers and other research instruments and tools (McNamee, Gergen, 1999, p.17). In such context, an ultimate purpose of "Design" was identified with simplification through the conversion

of visions into sensorial manifestations in the world, by means of processing of technology and materials. As anticipated in the bibliographic review and empirically verified, "Design" in postmodern times plays an augmented role by claiming new territories and competences under its own processes. In this respect, technology could be interpreted as: a) an asset, enabling richer or smarter manifestations to be materialized, or b) a liability, dictating the actual content of innovation to the terms of its own road mapping. This is formalized in High Design with the ambition to achieve paradigm-changing impact on both the farfetched future (Horizon 3) as well as immediate next generations of objects and solutions, which populate the material world (Horizon 1), within the following framework of qualities and requirements, as presented in Chapter 4 (adapted from: Bevolo, Price, 2006, p.7):

a) *multidisciplinary, as proven since 1960's "Wild Cat" cross-competence projects performed since the 1970's, with designers, engineers and scientists joining the same teams and the same creative process;*
b) *action-oriented, as in the natural mindset of designers in terms of their own ethos and professional narratives;*
c) *focused on preferable futures better than "doom scenarios", to fulfill a specific role in corporate and business innovation processes and growth engines.*

In Chapters 1 through 4 it has been feasible to bibliographically report how High Design was conceived in order to counterbalance the scientific and engineering structural preponderance in the Philips corporate culture with a more humanistic, holistic and integrative practice of multidisciplinary design. What can be observed is how "scientists" and "engineers" join High Design teams and design processes, on a cross-competence basis, without leading the resulting multidisciplinary processes. While the Grounded Theoretical Cluster above does not explicitly mention any role for technology, a specific Transitional Proposition, although not a primary one, clarified and confirmed the non-existence of any technology or engineering supremacy in the design of the program:

9.2.3.10 Ancillary: *The program is not technology driven and is not designed for an engineering mindset…*

In line with High Design, the original intent of city.people.light was to generate and process technological outdoors applications according to people driven insights of the future. This is reflected both in the visual articulation and the textual treatment of applications as embedded in design futures concepts, within the structural moments of communication in the Central Phenomenon. Here, technology is generally presented as ancillary to conceptual visioning, with particular reference to Horizon 3 innovation scenarios, where enabling technology is non-existing. One might argue that this is a natural outcome of adopting Horizon 3 innovation design perspectives, where the projection into the future is so advanced that it goes beyond the reach of any existing technological roadmap. Even in concepts pertaining Horizon 2, technology emerges as complementary (in a purely descriptive fashion), as often specified in the 2014 book in terms of technical notes. One might conclude, that the heart of city.people.light beats through different and diverse vital arteries, where technological drivers are not primary vessels. Furthermore, the strong humanistic drive of High Design should be recalled as well as a trait of distinction in the pursuit of a) a more holistic balance, b) of a postmodern vision of innovation and c) of a people-focused notion of future-making. Hence, beyond sole technological roadmaps.

In terms of technological applications, since city.people.light is a design-led urban futures program, a validating question to probe hypotheses formulated so far in bibliographic or theoretical terms, is: "What are examples of how city.people.light contributed to the concrete delivery of products or solutions?" From "insider's insight" and from expert dialogs performed for this PhD study, it is possible to capture a number of spin off or follow up contextual projects, where city.people.light insights, trends or methods converted into real world applications, leveraging existing technology for industrial production, with profit-making as a primary business goal. For the purposes of this specific paragraph, the selection thereof will be limited to three noticeable references, identified and described by means of primary interviews as proven by several references in the Appendixes:

a) The FreeStreet product line by Philips Lighting BV, launched in 2011 to universal design acclaim and rapidly winning prestigious awards, presented in the company commercial "discourse" as direct outcome of city.people.light 2006/2007 global program (see empirical findings, Appendix A);

b) The STRIJP-S public lighting experience strategy by Philips Design for Park Strijp Beheer BV, a project acquired on referral by the Gemeente Eindhoven, and editorially formatted somehow in aesthetic and conceptual continuity with the 2007 city.people.light book (see empirical analysis, Chapter 6);

c) The Stavenger lighting masterplan by Zenisk Lysdesign, Oslo, Norway, that was partially based on the city.people.light matrix tools and general principles, as absorbed by the practice founder during the 2012 Copenhagen *"Create the Livable City"* workshop (see PhD interview transcript and empirical coding Appendix A: Kristin Bredal, 2013).

These three examples of specific technology-based direct "outcomes" of city.people.light urban futures scenarios and / or tools might offer additional reasons of interest for further analysis beyond the scope and purpose of this PhD study, being ancillary in terms of focus on the co-creation and actual communication processes that constitute its "Central Phenomenon". From the above limited references, one might argue how the conversion of city.people.light and its collective, reflexive, humanistic modalities managed to take place in contexts as diverse as product innovation and development, city neighborhood master planning at conceptual level and urban design at master planning level, including the development of a dedicated product design. As a natural consequence, it is possible to assess that city.people.light as a design-driven process has a high potential of possible compatibility and continuity with technological applications in lighting design, landscape architecture and urban design. This by means of flexibly integrating its futures research knowledge and future-making design competences and convert them into assets for the realization of technological manufacturing, system planning or other applicative solutions. It must be recalled again how, in order to get High Design to a position of people-driven mutual interdependency required its 1991 launch to be performed as a constructive antagonist statement versus the positivist, scientist and engineering-driven culture of the corporate and business units at Philips.

In short, city.people.light surely and deeply relates to technology, while aiming to re-focus High Tech development from the viewpoint of human priorities and preferences, shifting from scientific roadmaps of potential applications to multidisciplinary synthesis across (professional) stakeholder networks. From this viewpoint, it might be possible to conclude that –as far as city.people.light is concerned- the re-balancing of humanism

and technology, or of people focus versus High Tech, as intended in the conception of High Design did result in a balanced outcome. As literally stated in one of the transcripts (Stefano Marzano, PhD interview, 2013), High Design offers the higher level of synthesis, where "technology" is but one of the constituencies, together with social research, for the purpose of *"liberating new insights".* An application of plain engineering would instead lead to an "automatic translation" of technological roadmaps into applications and solution. It is through the specific High Design approach as a manifestation of postmodern "Design Thinking", instead, that a value-driven normative focus might be built on the basis of human preferences.

At a deeper epistemological level, reconnecting to bibliographic reflections articulated in Chapter 5, one might stretch the analysis by proposing that, today, an equivalent alertness to the false imperatives of technocratic *solutionism*, as described in Chapter 5 referring to Lash and Morozov, might require critical thinking and an exercise in sociological imagination, or Design Thinking creativity. For this purpose, the humanistic driven, people-focused, preferable futures-biased synthesis of a) technology as systems and b) the holistic, organic existence of what Habermas defines as "lifeworld" might be seen as active expressions equivalent to those by a "minor practice". From this viewpoint, High Design and its principles should not be confused with a neutralized synthesis of equally inert instances presented, for example, in the theoretical construct of *"Sociomaterial Assemblages"* (Seitinger, 2010), being defined as: *"…the joint and enmeshed importance of material affordances and social practices with no categorical position on symmetry or asymmetry of actors"* (Seitinger, 2010, p.27). Here, no hierarchy was defined or position was ultimately chosen in terms of priorities between technology and the social sphere. One might draft the hypothesis that *Sociomaterial Assemblages* were possibly conceived as a compromise to somehow avoid the problematic nature of relationships between these two spheres. This concept appears optimally balanced in sociological terms of scientific neutrality and formally correct from the viewpoint of actor network theory, e.g. Latour. However, from a specific designer perspective, implicitly not taking a position actually might imply taking a position. In the case of the above High Tech-related socio-cultural tension, the resulting position implicitly taken might then be the one corresponding to the most dominant discourse in culture, hence *"solutionism".* On the contrary, levaraging actor networks with the purpose to mediate and achieve a people-focused synthesis, High Design does take a categorical position across existing *"man versus machine"* asymmetries, articulating the urgency to liberate human insights to pursue preferable future symmetries, in line with the ambitions of Fry to define new notions of *"futuring",* as presented in Chapter 3. By no means does the above analysis imply a general disbelief in the innovation possibilities implicitly present in the current *"technological exuberance turn"* within society, on the contrary: *"Given the great destruction involved in the rise of information culture, there is no denying the space of innovation it opens up, the space of experimentation…"* (Lash, 1999, p.14). What is herewith presented is however a careful reflection on the urgencies and imperatives at hand for designers and design, in line with Fry's concern of *"de-futuring"* and the need of a new notion of "sustainment", beyond contemporary sustainability. As articulated in Chapter 3 and in Chapter 4, designers have the opportunity to be the best interpreters of a new ethical imperative based on people-focus (Marzano) and such sustainment (Fry), even reaching beyond human-centrism (Fry), in line with their potential leadership at cultural level within postmodern societies. The city.people.light methodological choices regarding the position and the treatment of technology through design-driven processes confirm the mediation role of "postmodern design" between different disciplines and across diverse worldviews.

CONCLUSIVE NOTE

In a complex and contradictory urban future-forming context, city.people.light delivers a dynamic simplification in a process of meaning-making, namely generating and interpreting "outside-in" pulses, impulses and insights, to channel preferable visions/images of the future. Its impact is enabled by triggers for company change, from product roadmaps to enterprise-wide reflexivity, with city.people.light books acting as knowledge repository and primary references across different company processes and teams. Since chapter 9 has already eloquently elaborated on various levels of this PhD study, from its theoretical roots to the conversion of its primary research assets into grounded theory propositions and concept, these conclusive notes will be limited to highlighting a few elements that strikingly emerged, giving them the specific position of relevance and dignity associated with the last statements in any editorial flow. This PhD study focused on "Design" in postmodern times, namely High Design as an interpretation thereof. It was reiterated how the nature of High Design is multidisciplinary. Therefore, in this respect, the challenges described should be intended as referred to "design" as an encompassing process of meaning-making and not in the modernist sense of research-driven teamwork functional to plain aesthetic specification of plastic and experiential form factors for industrial products. This PhD was inspired from the tension between "structure" and "practice" as formalized by DeCerteau. In this respect, a design-led urban program like city.people.light works at the edges, as a *"membrane operating across borders"* (Kuosa), to envision the future. Consistently, the scenarios and concepts portrayed and described in the two city.people.light books identified as "research objects" were examined as triggers potentially operating in the space of liminality. It is the program in its entirety, however, to ontologically be a clear manifestation of a structural system (the corporate business unity), while adopting "guerilla tactics" and informal practices to survive over time, namely two decades. This is a sophisticated corporate process that entails leveraging networking mechanisms associate Habermas' "lifeworld". At the same time, besides any "structural" approach or formalized procedure, what appears necessary to guarantee momentum and continuity to city.people.light processes over time, is the element of organizational leadership and advocacy. Within city.people.light, individual leadership is key, as personal motivations are mission-critical. Multiple stakeholders and decision-makers have been and remain at the time of editing this manuscript both (self) motivated and informally involved, sometimes over exceptionally long periods of time, de facto enabling its existence. In formal terms, it clearly emerged how, at least since 2007, Philips Lighting acted as full owner of the program, determining its process design in terms of opening the workshop up to external stakeholders, selecting invited participants and defining specifications and KPI's. From a format viewpoint, this transition of full operational ownership from Philips Design (1996) to Philips Lighting (2011) might be considered as a sign of resilience, flexibility and robustness of the program itself, which maintained its integrity while migrating from service unit to business unit. It is however not the modernist, industrialist notion of leadership that is being expressed in this design-led program. One might speak instead of "multiple ownership" or "pluralistic advocacy", involving professional skills and personal motivational factors that go well beyond the perimeter of "design" or the "designer" as defined until modernist conditions applied. Ultimately, considering the expansion –and therefore relative dilution- of "Design" competences within High Design in terms of its disciplinary specificity, it might be possible to conclude this study by stating that, in postmodern times, one does not have to be a designer in order to perform a design process.

SECTION IV
CONCLUSIONS AND REFLECTIONS

CHAPTER 10
REFLEXIVITY AND RESEARCH REFLECTIONS

NAVIGATOR

- to be expected in chapter 10:
  reflexive notes: history and context of city.people.light, professional and personal history of relationships with interviewees, observations on interview dynamics, personal reflections on workshops and books, reflections on memoing.

- references from earlier chapters that enable understanding of the chapter:
  Chapters 1, 5 and 9 "Conclusions" (generic reference).

- position / role of the chapter in the PhD study overall sequence:
  reflexive / analytical, with focus on personal reflections and memoire.

- why the chapter is relevant:
  providing reflexive context to the entire PhD study, in particular accordance with constructivist principles outlined in Chapters 1 and 5.

- to be expected after this chapter:
  Appendixes (valid for the entire PhD study, unrelated to this Chapter 10).

INTRODUCTION

One of the key theoretical points where the postmodern episteme radically departs from the positivist paradigm of natural sciences, is the fact that, as anticipated in the earlier bibliographic and methodological chapters, postmodernism embraces the notion of personal influence by researchers in their research: *"When researchers select a phenomenon for study, they are giving voice to the cultural traditions of which they are part… What we call "measures of the phenomenon" are not, then, reflections of an independent world…"*(Gergen, 1999 – 2009, pp.58 – 59 - 60). In terms of general rationale, the reflexivity challenge embodied in this Chapter 10 is grounded in the following notion of "third space", consistently re-calling that of "liminality" introduced since Chapter 1 and leveraged through the entire PhD: *"Both the sociological theory of reflexivity and the cultural theory of difference presume a third space, a space of reflexivity which does not deny the rule of sociality, but which understands social activity in terms of finding the rules"* (Lash, 1999, p.10). Based on such epistemological awareness, constructivism assesses the *"predict and control"* modality, typical of natural sciences, as being not applicable to the realm of sociology, which remains eminently historical. Such notion of "research" appears consistent with the reflexive necessities articulated in this chapter of the present PhD study, as it enables the emergence of the researcher as an "involved subject" –playing an "insider's role" generating "insider's insights"- in the process. Such a dual role emerged when two "paradoxes" were introduced in Chapter 5, one being the dialectic dynamics of "Design Thinking" versus technological discourses within a design-led urban futures innovation context; the other being the overlapping functions played by the author of this PhD, acting both as Principal

Urban Futures (since 2011) / Research Director (from 2006 through 2007) on the actual city.people.light programs under examination ("research objects") as well as being the PhD researcher leading such examination as well. The "technology" paradox was addressed in the conclusive paragraphs of Chapter 9. A specific requirement dictated by the nature of the "insider paradox" is the critical need for transparency, hence the strong reflexive angle substantiating this Chapter 10. As repeatedly anticipated, Grounded Theory did not suffice to cover all the methodological challenges at hand within this PhD study, neither in its 1967 original design by Strauss and Glaser, nor in the specific *"constructivist turn"* as elaborated by Charmaz in the 2010's, hence a *"bricolage method".* In this respect, the choice for the leading approach within this PhD study incorporated the possibility to adopt different methodological modalities and, in the case of Chapter 10, editorial modalities, functional to the diverse challenges at hand. Starting with this introduction, the final Chapter 10 will therefore address the "insider's role" paradox, adopting a reflexive posture and a different editorial style, namely a narrative one in line with fictional storytelling, modeled on the authorship practice by social scientists publishing for a wider public, e.g. Thornton, in her ethnographic analysis of the fine arts system, *"Seven Days in the Art World"* (2008).

In first place, ethnography is the *"study of social behavior of an identifiable… culture-sharing group"* (Creswell, 2013, p.90) with the goal *"to develop an overall cultural interpretation"* (Creswell, 2013, p.92). Central to ethnography is the notion of *"fieldwork" as "collecting data… through interviews, observations, symbols, artifacts, and many diverse sources of data"* (Fetterman, 2010, quoted in: Creswell, 2013, p.92). Creswell distinguishes two possible views in the process of ethnographic data analysis: "emic perspective… reporting participants' input in verbatim quotes" (adapted from: Creswell, 2013, p.92) and the "etic perspective… formally developing an overall *cultural interpretation*" (adapted from: Creswell, 2013, p.92, emphasis with italics in the original text). "Cultural interpretation" is then defined as the *"…description of the group and themes related to the theoretical concepts being explored in the study…"* (Creswell, 2013, p.92). This notion of "cultural interpretation" appears in line with the opportunity generated by the double role at play in this study. Almost inevitably, considering the involvement and the nature of the leadership expressed by the PhD researcher, both formally and informally, in the city.people.light applicative programs, Reflexive Ethnography does therefore complement Grounded Theory and case history in the mixed method, in order to address this peculiar aspect of this PhD study. In particular, "auto ethnography" was identified as possible methodological reference to report on this fundamental aspect, in forms of testimonials to be …*"written and recorded by the individuals who are the subject of the study"* (Ellis, 2004; Muncey, 2010, quoted in: Creswell, 2013, p.73). As a specific form of Reflexive Ethnography, auto ethnography implies, almost psychoanalytically: *"…the idea of multiple layers of consciousness… They contain the personal story of the author as well as the larger cultural meaning…"* (Muncey, 2010, quoted in: Creswell, 2013, p.73). Within this approach, *"…the researcher is simultaneously the object of research"* (Gergen, 1999 – 2009, p.72). As already mentioned in the theoretical chapters above, this approach presents the risk for *"…the self-absorbed Self to lose sight altogether of the culturally different Other"* (Rosaldo, 1993: 7, quoted in: Davies, 1999, p.178). In particular, *"…this sort of autobiographical exploration in fieldwork also involves greater sensitivity to the way in which cultural realities are constructed…"* (Davies, 1999, p.180). As the relationship between "native" and "insider" is naturally problematic, even more so considering the specific overlapping roles in this project, *"…the final step in the direction of researching selves is of course for the self to be not just a central character in the collectivity being researched but the*

principal character, so that the ethnographer is his own informant…" (Davies, 1999, p.183). This introspective approach to Reflexive Ethnography represents a natural potentiality as *"data mine"* for abductive inferences, in a process that aims at transforming "everyday practice" into sociological, psychological and behavioral information, from the status of informal observations or memories into that of formal research data. Starting from the general theoretical foundations of ethnography and looking at social patterns and worldviews, auto ethnography, with a strong accent on the "etic" insights of the researcher (Creswell, 2013, p.96), as opposed to the "emic" views of participants, already represented in the empirical primary interviews, will be solely adopted in the context of this mission-critical Chapter 10 entirely devoted to reflexive considerations, in the following line of epistemological and editorial thinking: *"Qualitative research tries to establish an empathetic understanding for the reader, thought description, sometimes* thick description*, conveying to the reader what the experience itself would convey…"* (Stake, 1995, p.39). According to Thornton, participant observation generally generates a transformational effect on the researcher, resulting in and/or impacting the process of "restorying", identified as *"…the re-organization of stories into general types of framework… with deconstruction of stories to expose dichotomies, disruptions, contradictions…"* (adapted from Creswell, 2013, p.74). This chapter will therefore aim at reporting various stories describing city.people.light at historical and personal levels.

One might have expected that, in natural consistency with the above notes, ethnography to be chosen as the overall, overarching methodology governing the entire PhD study, from Chapter 5 onwards. Yet, a number of apparent required conditions for such choice were however assessed as impossible to meet in order to pursue such choice, namely it would not be entirely correct to describe the city.people.light teams, stakeholders and networks as one closed, intact *"…culture-sharing group…"* (Wolcott, 1994b, quoted in: Creswell, 2013, p.96). The issue of relative discontinuity of city.people.light networking "loose connections", determined by the repetition frequency of workshop events, was already highlighted in earlier empirical chapters as well as in the cross-referenced conclusions at the end of Section III and in Chapter 9. Perhaps, taking into account this peculiarity of city.people.light, the description of the art world as *"…a bunch of squabbling subcultures, which embrace different definitions…"* (Thornton, 2008, p.258) might better apply to city.people.light circles, contributors and individuals. In particular, the episodic nature at networking level, however formally reiterated, of city.people.light events might not offer the best holistic context of research at one specific, determined and enclosed site, where a behavioral study based on ethnographic methods can be conducted in a unified fashion. In the Author's note to her self-assessed book of "popularized science", aforementioned *"Seven Days in the Art World",* Thornton defines as "main investigative method" of ethnography: "participant observation", defined as *"…a cluster of qualitative modes, which include firsthand experience of the environment, careful visual observation, attentive listening, casual… interviewing as well as formal in-depth interrogation, and the analysis of telling details and key documents…"* (Thornton, 2008. P.256). Davies recalls Merton (1988), in stating that *"…autobiographers who utilize theoretical concepts and analytical procedures of social research in constructing their personal history in a social context are engaging in a form of participant observation where they have privileged access to their own experience"* (Davies, 1999, p.184). This Chapter 10 will therefore be articulated in a narrative editorial style, focusing on specific parameters structuring the PhD research design and execution, e.g. "research objects", Central Phenomenon and Key Research Question. A note on "memoing" as a peculiar research technique will be included, to complete the reflection in line with the fact that

this specific topic was mentioned in Chapter 5. The structure of the Chapter will reflect selected PhD study milestones, in line with the above methodological notes, according to the following progression:

- history and context of city.people.light;
- relationships within city.people.light, including concise individual profiles of the 13 interviewed experts;
- workshop as manifestation of the city.people.light practice-focused process;
- book as manifestation of the city.people.light structural moments or products;
- comment on the function of "memoing".

As based on the above rationale, as anticipated in the first paragraphs, the presentation will be based on anecdotal facts and factoids, narrative techniques and a fictional style. The aim is to present information, reflection and introspective notes about the specific formal and informal roles and functions exercised within city.people.light 2006–2007 and 2011–2014 programs, while reflecting on their impact on the PhD research, where applicable. Also based on the earlier academic background of the PhD researcher, who wrote a 1994 dissertation focused on the psychoanalytical analysis of creative processes in advertising, the general view is inspired by considerations that might implicitly refer to authors like Freud, Jung, Kris, Chasseguet-Smirgel in their study of creativity, who constitute implicit knowledge and a general mindset for the PhD researcher. It is necessary to specify that data or direct information about the quantification of budgets, costs and other financial information will be excluded from the reflection, on the basis of precise formal conditions stipulated with Philips Lighting at the moment of starting this PhD. Direct quoting or attribution of professionals involved in any description of facts and circumstances might be omitted where appropriate for privacy, personal confidentiality or general legal and liability concerns.

10.1 HISTORY AND CONTEXT

The PhD researcher was hired with a full time collective employment (Dutch CAO) contract (Grade 60) as staff member of the "Strategic Design" department of Philips Design (part of Philips International BV), starting on 05.04.1999, in Eindhoven. The Strategic Design department was structured in delivery teams servicing accounts by means of a dynamic competence portfolio, with a mix of design and social sciences expertise (anthropologists, psychologists, market researchers). The department was managed by a seasoned design veteran, credited with the development of successfully disruptive innovation solutions, and by a former account manager of FutureConceptLab. The latter directed city.people.light 1996–1997 at agency side. She was then offered the leadership role as Philips Design staff member to develop a mirroring trend analysis competence and research team internally at Philips Design. During the years prior to being assigned the responsibility of city.people.light, the PhD researcher matured (up to the title of "Director", Grade 80 CAO scale) a combined portfolio of managerial and project tasks, including: a) the ownership of the content area of cultural trends and aesthetics; b) the management of a Visual Trend Analysis team (5 fte); c) the creation and promotion of a Brand Design platform deployed through a matrix structure; d) project direction and business development with both Philips companies and external market companies; e) authorship and company speaker tasks on the international research and design circuits. At the same time, one might have observed how the career path of the PhD researcher had remained fairly fluid and outside the actual managerial

frameworks of Philips, that were more based on direct management of staff, budget ownership, consolidation and control of one's own portfolio into company competences. The PhD candidate worked, instead, more on informal relationships and networks both within and outside Philips, on cross-competence opportunities and on leveraging his own past background in advertising, public relations and journalism. This peculiar mix created, through the years, a context where the PhD researcher would work in a very mobile fashion, without direct ownership of an own "proper", however contributing as a management team member of the Foresight, People and Trends practice, with a team of 15 to 20 research specialists strong, as one of the four directors. On a personal level, the PhD researcher had a solid reputation for being delivery-oriented, even under major deadline pressure, and a clear preference for complex projects requiring relational qualities and intensive international travelling.

10.1.1) Anno 2006

In this context, the city.people.light 2006 project direction took form as a recurring situation in the yearly routine of the PhD researcher in his company function. The first contacts between Philips Lighting and the PhD researcher were made in Spring, through the Philips Design global account director, within official channels and following formal procedures. The business unit managers and service unit representatives had apparently been in discussion since the first quarter of 2006, however decision-making appeared to be delayed because of unspecified reasons. It must be recalled that the PhD researcher had no internal or prior experience on the topics and motives of urban futures or architectural trends, being his main areas of expertise brand design, advertising, fine arts, automotive design and fashion. In accepting the task, the PhD researcher was aware of the great time pressure created by the prospect deadlines and project framework, as there was the expectation to complete a whole cycle of around 15 thought leaders' interviews in Summer, before September, to then shift to a workshop cycle of four events, to be held in the period from September to December. Additionally, there were contradictive requirements, e.g. including internal Philips designers in the workshop setting for internal training reasons, although the workshop co-creative approach did mandate not to include Philips designers as participants, being focused on stakeholders' collaborative output and the facilitation thereof. At customer side, under leadership by Fernand Pereira and Maximilian Venzke, a key value to be delivered by Philips Design contribution to the project was actually identified with the ownership and proficiency in terms of such supposed networking assets. Subsequent direct meetings with the Philips Lighting team, acting as customer coordination, clarified a major concern and urgency for the networking activation of contacts in the architectural sector, due to expected mirroring the same world-class level of 1996 contributors to the first city.people.light. This expectation appeared extremely challenging at the delivery service side, given a) the aforementioned planning overlap with the coming 2006 Summer holiday season and b) the standard difficulty to plan short-term commitments in the agenda of thought leading members of the creative industry, in this case, architects. In essence, from a networking perspective, the situation at hand could be described as Philips Lighting aiming at revitalizing an earlier circle of professional contacts, with Philips Design being contracted as a "networking switcher". Within Philips Design, such switching capacity was partially played by Stefano Marzano, CEO, who retained a number of relevant stakeholders from the earlier city.people.light edition and his own professional and personal networks. The expert interviews to be performed were structured according to a questionnaire, based on an item list and then highly personalized, according to the thought leader status of interviewees. A number of

architects were interviewed in their Summer homes across Europe or in their vacation hotels. In one case, the appointment was obtained through family connections, making it possible to earn half an hour phone interview with a leading name in the trade, at 7:30AM while the architect was at his Summer farm. In order to manage this fast turnaround assignment, the ability to engage with personal assistants at architectural firm side was key in retrieving the appointments, since the management of agendas is in their hands. This required a number of ad hoc actions in terms of identifying the right contact persons within each architectural firm, reach them and articulate the most effective proposition to earn a time slot within deadlines. In this respect, the PhD researcher was confronted with a major relational challenge, where his main assets were his own networking skills and "*savoir faire*". The obstacles to overcome were therefore multiple in terms of both relationship management and knowledge management, as mentioned above. One might say, the PhD researcher aimed at "building the airplane while flying", leveraging a mix of relational, intellectual and personal qualities to manage a challenging start of the project. One might wonder, how a specialized project on cities was allocated to a relatively senior staff member of Philips Design who had no track record in related topics. The answer there could be twofold. Firstly, at personal level, the PhD researcher had a recognized background in networking and managing complex challenges under time pressure, giving up personal Summer holidays or other apparent "frivolities" when deadlines so demanded. Secondly, at professional level, the multidisciplinary nature of Strategic Design and the planning system were geared to profitable performance on the basis of project sales against an hourly tariff fee, therefore personal expertise was implicitly flexible as part of the professional profile of all senior staff.

10.1.2) Anno 2010

Compared to 2006, in 2010 the situation was very different, as the PhD researcher initiated contacts with the renewed marketing management of Philips Lighting BV as a follow up to a lunch meeting with Fernand Pereira, responsible for the 2006 research and co-author in the 2007 city.people.light book. In 2006, after a tense start, relationships with Pereira and his associate team member, Maximilian Venzke, matured in terms of mutual trust and the deepest professional respect. Beyond company circumstances, one might say that the challenging structure of city.people.light planning enabled the three professionals to appreciate each other's qualities and commitment to the program. This led to a personal dialog over time that translated in Pereira's availability to introduce the PhD researcher back to Philips Lighting new management, who never worked with him directly and only knew his name from the successful 2007 book, and related reputation. By Spring 2010, the PhD researcher was one full year in his post-Philips professional life, managing a mix of lecturing, consulting, researching, writing and conferencing activities, while retaining a Philips brand ambassadorship role. The professional profile of the PhD researcher substantially changed under each aspect, as he positioned himself as an external consultant with significant history in city.people.light direction and authorship, integrated by important collateral activities, from contributing to the 2010 Urban Summit in Rotterdam to guest lecturing at UNAM in Mexico City, including external support to Philips Korea in networking at the highest level in Seoul and independent author contribution to Philips Lighting press events (Lyon, December 2010). Furthermore, as any entrepreneur would, in early 2010 the PhD researcher strategically reviewed his portfolio of contacts for business development and realized that the 2007 city.people.light book was reaching its maturity, therefore proactively proposed to Philips Lighting both the possibility of a "refreshment" of the

2006 trend study or any suitable extension that might result in consulting contracts. The feedback from Philips Lighting and subsequent dialog proved generally positive, as Philips Lighting was already experimenting with Tapio Rosenius, founder of Lighting Design Collective and independently positioned as a "rising star" among European creative leaders in the trade, as an external consultant to lead workshops. Once again, the genesis of *"Create the Livable City"*, as the European program was labeled, was relatively long, as it accounted for the period from October 2010 to May 2011, with communication difficulties and a gap period between March 2011 and May 2011 before final decision making and signature of the consulting contract. The new program set up was respectful of the 2006 city.people.light blueprint, however also refocused in terms of modules, roles and responsibilities. Firstly, a greater focus was attributed to the workshops in terms of relational intensity. In the workshop, the focus specifically shifted from a mix of top lighting designers and architects, to landscape architects as primary stakeholders, with the introduction of lighting equipment to realize mock ups. Secondly, the thought leading interviews were limited to a refreshment of 2006 findings based on six European experts. In 2013, it was decided to also invite two additional interviewees, respectively representing German-speaking and Polish markets, always according to the same principles. Thirdly, the overall 2011–2013 workshop design included a panel session with local experts, aimed at operationalizing European trends for each workshop. Lastly, most prominently, Philips Design as an organization was not involved in the project, that was designed to exclusively operate within the strategic marketing boundaries of Philips Lighting. Philips Design at that time was focusing on different modalities of research at experimentation level, piloting alternative solutions to the challenges addressed by the city.people.light approach. Although some fundamentals changed, the basic blueprint of the program substantially remained intact and so did the general dynamics, requiring the ability to flexibly adapt to evolving circumstances, a dynamic planning and a different professional environment, more immersed in the everyday practice of European countries, markets and urban architectural professionals. What appeared to be particularly positive in the new set up is how, generally, relationships were inspired by clarity and mutual respect among all team members. An additional challenge was constituted by the fact that the involved participants in the workshop events were to be aforementioned landscape architects and urban planners, therefore shifting focus from lighting designers as invited in 2006. This choice marked a precise strategic intent, that of reaching the ultimate audience for the "Architects' Approach", namely professional practitioners who would have the opportunity to learn about lighting design. One might say, that in this respect the rationale of the program matured from "just listening" to what stakeholders had as ideas about the future of lighting to "listening and sharing" in a two-ways educational process.

10.1.3) Independent Valorization and Polish spinning

A potential history of city.people.light spin offs and profiling is rather ambivalent in terms of actual direct involvement of the PhD researcher. On the one hand, in more commercial events at country level, the combined effect of budget constraints and specific sales focus resulted in lower demand for theoretical and sociological content. On the other hand, as an external ambassador, the PhD researcher was granted, since 2007, the faculty to freely represent city.people.light and present its publications, findings and rationale in academic, conferencing and business settings, resulting in the exposure of related content in valorizing contexts in Europe, Asia and the US. On selected occasions, Philips Lighting staff joined as observers and in order to contribute with additional materials or to organize collateral activities. As most notable examples, the

PhD researcher joined the senior Philips Lighting Korean team in a personal presentation to the Chief Design Officer of the City of Seoul, during Seoul World Design Capital preparations, or Philips Lighting CEE (Central Eastern Europe) marketing management joined the "Green Cities" symposium of the Dutch Embassy in Sofia, Bulgaria, where the PhD researcher performed an independent contribution. It might be therefore noted how the PhD researcher performed different roles at different times in terms of spin off from his leaders' role in city.people.light, mostly not directly contracted by Philips Lighting, who exercised their total flexibility in enabling an independent valorization of city.people.light public assets, from the book to presentation sets as available. The mutual benefits implied in this approach have been consolidated over the years, with networking access, profiling and validation of city.people.light and of the expertise expressed by the PhD researcher, respectively, in contexts and situations where otherwise no exposure of Philips whatsoever would have been possible. From a personal viewpoint, this resulted in the PhD researcher establishing an increasing level of independent authority over time, also in the light of turnover on the Philips Lighting team. Of course, through the years Philips Lighting had several own ambassadors, e.g. in relationship with the city.people.light Awards, a line of activity where the PhD researcher had no involvement whatsoever. However, it remains a peculiar aspect of the history of the PhD researcher within city.people.light to combine a formal condition of external consultant, therefore void of executive power, with an ambassador role, amplifying the city.people.light messaging under his exclusive relationship as independent authority. It must be specified that no Philips Lighting staff member or representative ever interfered with such independence, respecting the requirements of the different academic, public speaking and publishing activities entertained by the PhD researcher at each given time, as part of what could be described as a mature partnership formalized in annual contractual terms.

As a best example of an internally contracted extension from the city.people.light format, it might be worth recalling how, during the Bratislava workshop event, the 2011 launch of the new *"Create the Livable City"* European program, the PhD researcher met a number of Philips Lighting regional and country representatives for Central and Eastern Europe (CEE), including Dorota Slawinska, Marketing Manager at Philips Lighting Poland SA, who was in the process of setting up a Polish strategic CRM program modeled on the city.people.light and *"Create the Livable City"* blueprints. The dialog with Slawinska resulted in a cross-company consulting contract for 2012, aimed at involving the PhD researcher in the general fine-tuning of Polish event design, and in direct contribution to three key workshops. This spin off, administratively differentiated from the European task as managed through the country budgetary accounting in Poland, appeared very appealing both in terms of business development, as any entrepreneur knows that cross-selling through different business lines of an account maximizes profit opportunities while lowering acquisition costs. Furthermore, the PhD researcher had been very positively impressed by the personal affinity that emerged in the short time span of one event with the Polish team. Such a team appeared motivated, eager and extraordinarily focused. Such qualities would emerge also in the direct experience of the Polish market, with great synergy across EMEA, Poland and other ambassadorship activities for the best benefit of Philips as a whole. This spin off assignment was delayed by a major medical event that affected the PhD researcher in Spring 2012, however it was honored by both sides of the contract, and it resulted in the later inclusion of the Wroclaw workshop of the "Architects of Light" series and of one Polish expert interview in the 2014 European book.

10.2) RELATIONSHIPS WITHIN CITY.PEOPLE.LIGHT

Since 2006 a number of professional and personal relationships were key in the context of the PhD researcher and his city.people.light roles and responsibilities. In the paragraphs above, the examples of Fernand Pereira and Dorota Slawinska were mentioned in their crucial capacity at given times, to enable switching into business opportunities and program extensions in time or geography. For example, the aforementioned independent UNAM cycle of city.people.light workshops in Mexico City, in Spring 2010, was the result of following up in the dialog with Mexican leading designer, Gustavo Aviles, founder of LightTeam, whom the PhD researcher met in 2006 in Philadelphia, as an event participant to the North American session of that global program edition. Similarly, the 2010 Global Urban Summit contribution, involving a joint stage performance with Winy Maas, of Dutch reputed architectural firm MVRDV, was a follow up to the dialog established, always in Summer 2006, with Maas in his capacity of thought leader being interviewed. On an even greater impact across editions, one might mention the 2006 interview with AMO leading partner at OMA, Rotterdam, who was facilitated by then architect at OMA, Samir Bantal, on the basis of a personal connection at networking level. The dialog with Bantal continued through the years, independently from city.people.light activities, resulting then again in his direct contribution to *"Create the Livable City"*, as background of the book published in 2014, when he returned to OMA AMO in a leadership role.

10.2.1) Individual Experts

It is not within the scope of this PhD study to address in its entirety the portfolio of relationships and networking assets generated within city.people.light projects and programs, and their mutual interdependences with the professional and personal life of the PhD researcher. It is however due to clarify and provide at least a general background texture to the specific relationships with the thirteen interviewed experts who contributed to this PhD study, in order to both reflect and transparently inform about actual circumstances characterizing earlier acquaintance between the PhD researcher and them, as a critical enabling factor for the design and execution of this very PhD study. This will follow the same order as provided in Chapter 5 for the methodological introduction of the interviewed experts, with a few reflection points after the review.

10.2.1.1) Stefano Marzano, fr. CEO, Philips Design, Eindhoven

It is possible to recall that the first time the PhD candidate heard about Stefano Marzano was around 1998, during a business lunch with a third Italian architect in Milan, who described the CEO of Philips Design as a leader working at the highest level of strategy in a Northern European future-making, avant-garde setting. In the years between 1999, when he first met him during the Milan presentation of a Philips Design futures research project, and 2006, the PhD researcher maintained a great professional esteem for Marzano, including a private line of dialog beyond business issues. In the context of city.people.light 2006, Marzano directly intervened in terms of making introductions, providing advice and informally discussing at various steps. Being credited with the intellectual leadership of the first city.people.light in 1996, in 2006 he was however absorbed by his managerial activities to partake in the project at an operational level. In 2011 Marzano retired from Philips Design after 20 years of tenure as CEO and went on to assume responsibilities as Chief Design Officer and Member of the Board of Electrolux of Sweden. At the time of the interview, performed on Skype, the dialog with

Marzano still existed in the form of a regular correspondence. Notwithstanding the age difference between the PhD researcher and him is relatively low, around 15 years, one might speak of a professional relationship based on relative distance and father figure dynamics, although intrinsically frank and open in the dialog.

10.2.1.2) Tapio Rosenius, Founder, Lighting Design Collective, Madrid

Rosenius was involved with city.people.light activities starting in 2010. As a successful entrepreneur and a "rising star" in the firmament of European and near / Middle Eastern lighting design, Rosenius was contracted to perform the workshop direction in the *"Create the Livable City"* events, with complementary tasks than the ones defined in the portfolio of the PhD researcher. In practical terms, while the latter focuses on theory, socio-cultural trends and verbal articulation of scenarios, Rosenius provided the leadership, the charisma and the technical insights that enabled concepts to be geared for conversion into mock up's. Furthermore Rosenius, as co-author of the 2014 book, contributed with specific design insights and an overall vision of the lighting field. The relationship between the PhD researcher and Rosenius is relatively recent, as it started in late 2011 with the Bratislava kick off workshop of *"Create the Livable City"*, hence in the context of city.people.light. Nevertheless, it rapidly matured in further professional collaborations based on an amicable dialog inspired by the deepest personal trust. Being 10 years younger than the PhD researcher, Rosenius, a Finnish citizen based in Madrid and not naturalized but fully immersed in the Spanish lifestyle, conducted his Skype interview with punctual insights about the design process and strategic observations about his experience with city.people.light, as part of a larger context of cooperation with the PhD research at both intellectual and consulting levels.

10.2.1.3) Rogier van der Heide, fr. Chief Design Officer, Philips Lighting, Amsterdam

Van der Heide was appointed as Chief Design Officer of Philips Lighting after the end of the official career at Philips Design of the PhD researcher. Nevertheless, Van der Heide and the PhD researcher were no strangers, as meetings between them took place since 2009, in his former capacity as ARUP director of the lighting practice, resulting in a vivid exchange around city.people.light topics, and in an unrelated contribution to an ARUP foresight event in Autumn 2010. The acquaintance between Van der Heide and the PhD researcher might be characterized as correct, respectful and professional, although based on an informal and frank dialog, with mutual appreciation for each other's intellectual and professional activities.

10.2.1.4) Rik van Stiphout, Program Advisor, Municipality of Eindhoven

Van Stiphout was a participant in the Lyon kick off of the 2006 city.people.light global edition. Since then, the PhD researcher regularly met him and exchanged further knowledge, insights and opinions as part of a fluid dialog based on deep mutual appreciation for the respective professional areas of competence. Van Stiphout lives and works in the same city where the PhD researcher lives and works, operating as responsible for lighting design decisions and cultural policies related to lighting. Therefore, through the years, a natural dialog emerged leading to collaborations based on trust and mutual understanding. The interview for this PhD study was granted as a face to face dialog and it involved an open and frank discussion covering a varied series of topics within the item list, sometimes pertaining additional issues of urban lighting and culture that are relevant and beyond the city.people.light context.

10.2.1.5) Lorna Goulden, Director, Creative Innovation Works BV, Eindhoven

Goulden and the PhD researcher shared an entire decade from 1999 to 2009 as staff members at Philips Design, both at Director level and within the same department, however opportunities for factual collaboration never emerged. Goulden, strong of a brilliant track record in the UK, was already an established reference within the design leadership and middle management at Philips Design, when the PhD researcher joined the company as a consultant. Through the years, their respective parallel lines of "experience design" and "cultural trends / brand design" never converged, therefore the dialog was personally positive but professionally limited to informal exchange, without more meaningful interaction. At the time when Goulden directed the 2008 Strijp Lighting Experience Masterplan for the City of Eindhoven (reviewed in Chapter 6, as asset in "History and Context"), as a Philips Design project for external market consulting, the PhD researcher was neither involved with her directly, nor with Van Stiphout, the commissioner thereof. As a result, the "black book" and "grey book" were assets the PhD researcher needed to properly understand and position within the city.people.light portfolio. This was done during the PhD interview, not being exposed before to the processes that led to their conception and delivery. An additional area enabling mutual understanding during the face-to-face dialog was the professional career of Goulden after leaving Philips Design, shortly after the PhD researcher, as both the PhD researcher and her went on to become consultants and took the challenge to engage in further education, resulting in Goulden earning her international MBA and setting up her service company, Creative Innovation Works BV.

10.2.1.6) Oscar Pena, Global Creative Director, Philips Lighting

Pena was a long-term, very prestigious and highly influential creative leader (Director level) at Philips Design, where he was involved in major projects and programs with Marzano since the mid 1990's. In 1999, while Pena was Philips Design Milan branch office director, the PhD researcher met him for the first time and managed with him the very first activities leading to the creation of CultureScan, a cultural and aesthetic trends research program. Within Philips Design, Pena has always been utterly respected as a gifted product designer and a seasoned director with a wider understanding of lifestyle and culture. Being privately based in London and naturally immersed in international design trendsetting circles, Pena maintained a distinctive "voice" in the various teams and projects where he operated through the decades. Besides that initial collaboration, Pena and PhD researcher were never involved in commonly shared activities, nevertheless they were aware at almost every moment between 1999 and 2009 of each other's work, and shared a linguistic, if not cultural, affinity in their different Latin roots, Pena being of South American heritage. The interview was conducted face to face and Pena supplied a number of historical, contextual and contrarian statements, mostly referred to 1996 – 1997, highlighting possible areas where city.people.light delivered in suboptimal fashion as opposite to the general discourses emerging in Philips around the program. In these terms, the interview proved challenging, as the PhD researcher probed a number of hypothesis, with relative negative feedback.

10.2.1.7) Kristin Bredal, Founder, Zenisk, Oslo

Bredal and the PhD researcher met for the first time during the 2012 Copenhagen workshop event of *"Create the Livable City"*. Bredal had no contact with the PhD

researcher prior to this session and the only contacts afterwards were limited to the actual PhD study expert interview. In qualitative research methodological terms, perhaps Bredal supplied the most neutral interview of the entire expert panel, given that no personal relationship besides the limited acquaintance and mutual respect established in those two workshop days existed. On the other hand, it must be reiterated how Bredal adopted the urban futures matrix in her own lighting design practice after the workshop, as evidenced by the primary data analyzed in Section III, representing an ideal case of structural continuity between socio-cultural study and design practice outside of the Philips corporate and brand boundaries, hence the interview was more neutral and less biased by past experiences than the average empirical research dialog of this PhD study.

10.2.1.8) Nils Hansen, Senior Manager, Philips Lighting, Eindhoven

Hansen was introduced to the PhD researcher in 2010 as contact person for the development of the *"Create the Livable City"* EMEA program. A marketing communication strategist with earlier experience in Milan, he maintained a key leadership role in the program through to January 2013, when his role changed due to a career promotional step within Philips Lighting. Hansen and the PhD researcher established a professional dialog first, not without initial delays, at the time of program design and contractual negotiations, to then mature a personal affinity in the demanding context of initial program execution and delivery. In these terms, the relationship evolved along equivalent lines as the one with aforementioned Pereira. Having shifted his career focus into a sales position, Hansen was in the position to provide his face-to-face interview feedback with insights across the whole value chain of city.people.light processes, from a strategic marketing to an applicative perspective. Through the years of his tenure, Hansen acted as internal ambassador of the program and orchestrated activities with a clear focus on Rosenius and the PhD researcher as consulting leaders at content level, in their respective fields of authority.

10.2.1.9) Laura Taylor, Creative Lead Innovation, Philips Lighting, Eindhoven

At an opposite side of a hypothetical spectrum of acquaintance than Bredal or even Goulden, Taylor was one of the first staff members to be introduced to the PhD researcher in 1999 and, through the decade at Philips Design, often a complementary or even sometimes competing peer in the management and leadership of the Strategic Design practice. Working on a different basis, from an engineering and design background, validated by appropriate academic titles by prestigious UK schools, Taylor and the PhD researcher developed parallel service propositions within Strategic Design, one focusing on innovation (Taylor), the other on branding (PhD researcher). While no personal relationship existed at social or professional levels since 2009, Taylor and the PhD researcher discussed past events in a face-to-face meeting, with a high degree of implied meaning and implicit references to older dynamics. In this respect, like in equivalent face-to-face interviews with Goulden or Stuyfzand, the interpretation of body language, pauses and non-verbal communication represented a semantic key of exchange and interpretation.

10.2.1.10) Jasmine van der Pol, Lighting Designer, AF, Copenhagen

Van der Pol was one of the Philips lighting designers embedded as illustrators in city.people.light 2006 global workshops. As such, she established an informal dialog with

the PhD researcher based on common understanding and mutual appreciation. In 2011, Van der Pol was assigned to the *"Create the Livable City"* team according to her senior designer status, with the task to connect the Philips Lighting LIAS team (Lighting Application Specialists) in Lyon with the program, namely to ensure coordination at technical and logistic level with the necessary equipment for the realization of mock ups. Even more strategically, Van der Pol provided a general soundboard feedback on the elaboration of expert interviews, socio-cultural futures and in general of the entire theoretical and sociological component of *"Create the Livable City"*, ensuring that the formulation and treatment of this content would be aligned with the semantic requirements of activation with the workshop participants and stakeholders. Reluctant to take the stage under the spotlight, Van der Pol was invited by the PhD researcher to present intermediate trend information at selected *"Create the Livable City"* events and her role naturally and informally grew to play a strategic relevance in terms of urban futures leadership. Van der Pol shifted from her Philips Lighting career in 2012, moving to AF in Copenhagen, Denmark, a lighting design company. She retained a potential ambassador role for city.people.light content, as exercised in presentations and symposia. Her departure was experienced by the PhD researcher as a major moment of potential disruption in the team set up, given the ability of Van der Pol to pragmatically navigate networks, intuitively manage complex situations and connect strategic thinking with applicative work. The team managed to absorb the impact of Van der Pol's departure.

10.2.1.11) Dorota Slawinska, MarCom Manager, Philips Lighting Poland SA, Warsaw

As anticipated above, Slawinska was in charge of the design, conception and execution of "Architects of Light" in Poland and its Central Eastern European extensions, e.g in 2013 in Prague. Just like Van der Pol, Slawinska operated beyond her specific (programmer) role, connecting stakeholders, harmonizing sometimes contradicting interests and ultimately advocating the highest level of alignment between *"Create the Livable City"* and the Polish country market, gearing her work towards different demands and a specific stakeholder networking landscape. In these terms, it was Slawinska's intuition to propose and justify the additional investment required to directly involve the PhD researcher in selected Polish workshops, as it was her talent to guarantee the best harmonization of socio-cultural content within the workflow of Polish applicative sessions. In general terms, quality levels reached within "Architects of Light" offered the opportunity to extrapolate the Wroclaw workshop results and re-classify them within the context of the European urban futures publication, with a dedicated interview with a Wroclaw city management expert. As the city.people.light approach has often been challenged at the level of direct applicability, the specific case history of "Architects of Light" proved that the process is scalable and flexible for adaptation and adoption in the local context, without endangering the integrity of output and outcome. Within "Architects of Light", it can be stressed how a great deal of the professional value expressed by Slawinska was perhaps not even visible in the official company management systems, being articulated in informal contacts and proactive actions based on personal identification with the approach and the ethos of the program, beyond any hard line of duty or formal reward.

10.2.1.12) Fernand Pereira, Head of LIAS/Specifiers, Philips Lighting, Lyon

Just like Slawinska's, the role of Pereira in the history of the PhD researcher within city.people.light was also already introduced above. In 2006, Pereira was a seasoned

senior professional within the lighting industry, with a solid strategic and commercial experience matured in large projects executed in China at the time of the preparation of the Olympic Games, among other activities. As commissioner of the 2006 city.people.light global program, Pereira took the challenge to deliver the entire cycle of stakeholder events and then a book based on its outcome within limited investments. In his managerial acumen, he combined different resources and steered the programming towards what de facto was a whole new format, as the 1996 edition did not imply direct contribution of externals at concept workshop level. Through the years, Pereira continued to contribute to the follow up conversion and to work in a complex matrix organization to leverage the outcome of the 2007 book, and other subsequent spin offs. As the dialog with Pereira grew over the years from strict contractual terms to informal acquaintance and open exchange, it might be reiterated how his interviews enabled both critical knowledge and fact checking. Still a few years after Pereira stopped his active role in city.people.light context, moving on to other professional career challenges, he was regarded as the "godfather" of the program, based on his custodianship role across a decade or so.

10.2.1.13) Jos Stuyfzand, Senior Creative Director, Philips Design, Eindhoven

One might possibly best describe the relationship between Stuyfzand and the PhD researcher as inspired by the values of professional comradeship and personal friendship. Between 1999 and 2009, Stuyfzand was a regular peer in various project and public relations settings, including speaker's training in London, conference speaking and business development at crucial and delicate points. Besides a solid mutual respect in professional terms, the affinity with Stuyfzand was extended to various company circumstances. Grown in a successful senior creative direction role, Stuyfzand maintained his original authentic "designer mindset" intact at the basis of his practice. Complemented by informal acquaintance and personal dialog, Stuyfzand supported the PhD researcher since the early phases of this academic project, with advice and insights about the 1996 program and the context of city.people.light, and with a face-to-face dialog for the purpose of empirical data gathering.

10.2.2) Reflexive Observations

The above profiles offer an overview of city.people.light related professionals, as involved in the empirical research for this PhD study, who, across the last twenty years, contributed at different levels, with different intensity, in different moments to the conception, design and evolution of the approach. Although such selection as a homogenous panel was designed with the awareness that no statistical validity applied beyond purposive sampling representativeness, it offers a fair chance at capturing the landscape of talent populating the background of city.people.light. From a qualitative research viewpoint, all interviewed experts had been introduced, connected and familiar with the PhD research approach, vision and rhetorical style. With a number of them, one might speak of professional intimacy and even personal friendship, or anyway a quality of acquaintance that goes beyond professional terms. A few reflexive remarks appear appropriate to further fine-tune and enable a general appraisal of factors pertaining the interviewing process.

10.2.2.1) Relationship Patterns

The 60 to 120 minutes of PhD study expert interview was an episode in each of the above relationships, marking in some cases the opportunity to meet again with the PhD researcher after a substantial period of time, or even constituting a one off opportunity to reconnect. From a reflexive perspective, it cannot but be highlighted how the above personal history played a role in terms of comfort, tone of voice and openness of each respondent, as much as the adoption of the unified item list and of the same transcript protocol systematically applied to all dialogs. Almost each direct one-on-one relationship might be studied at a deeper level of psychological dynamics, in order to extract additional semantic validation for each transcript.

10.2.2.2) Conversion to transcript

While the possibility to fully omit any part of the interview that was retrospectively considered inappropriate was clearly stated at the start of each interview, the study design was rigid in not allowing any optimization of the grammar, styling or tone of voice expressed in the conversations constituting the interview itself. Such research policy led interviewed experts to sometimes confronting moments when reading back the outcome of the interview. Here, the existing relationships of trust with the PhD researcher might have mediated or perhaps mitigated the risk of omitting more text than required for strict company confidentiality reasons. In this respect, the research design leveraged the community feeling and relative acquaintance or even intimacy with some of the respondents by possibly enabling the possibility to bring the discussion to a more personal level, both in terms of content as well as in terms of expressivity, without second thoughts at a later stage.

10.2.2.3 Non-verbal communication

In the context of relative acquaintance, or even sometimes intimacy, as anticipated above, when face-to-face, besides communication features like tone of voice or implicit references, it is important to underline how the non-verbal communication exchange often assumed a very crucial role. In this respect, just like a pause or a hint in verbalized fashion might have been semantically loaded with intrinsic meaning, it is the very range of facial expressions, body postures and similar features that was generally valuable to orientate the construction of meaning-making between interviewee and PhD researcher. Sometimes based on affinities matured in years of mutual exposure, full analysis of this kind of information would have demanded videotaping interviews and analyzing videos almost on a frame-by-frame basis, which would have greatly exceeded the scope and purpose of this PhD study.

10.2.2.4) Humor

A peculiar trait in selected personal relationships from above is the adoption of humor as a rhetorical mechanism. Humor results in nuancing and texturizing the actual semantic level of dialogs with potential additional layers of meaning. When applied to the general standards of a dialog, mostly depending on advanced acquaintance, humor can be a natural modality of conversation, hence coloring statements, references or even the tone of voice of some passages with implicit markers qualifying the linguistic production in one specific sense or the other. Just like the above reference to non-verbal communication, this specific dimension of selected interviews was not captured, with

sole exception of the explicit laughing of respondents. An increased granularity through additional analysis, however exceeding the scope and purpose of this PhD, would entail reviewing videotaped interview materials.

10.2.2.5) Ambassadorship roles

A last remark in this concise analysis pertains the role of city.people.light "ambassador" played by a number of interviewed experts, both internally within Philips Lighting as well as externally with stakeholders, media and other audiences, starting from the PhD researcher himself. It would be fascinating to write a history of city.people.light from the viewpoint of informal networks, unspoken rituals and other unregistered events. Such a storyline might highlight the constant commitment to the approach by professionals acting beyond their lines of duty, their contractual boundaries and their formal tasks. In particular, within such "alternative history" of city.people.light, a specific role might emerge, as played by female managers and stakeholders, who often provided binding factors by taking the initiative behind the scenes, in fluid fashion, across hierarchies. Of course, the risk here is to fall into a socio-cultural discourse, which in managerial terms might become a stereotyping framework as biased as the chauvinist cultural biases that it aims to eliminate. This will be avoided. Nevertheless, one might state with a certain degree of confidence that without professionals like Van der Pol, Slawinska and more "ambassadors", often working "behind the scenes", the program would have not benefitted from synergies and opportunities.

10.3) WORKSHOP AS PRACTICE-ORIENTED PROCESS

As much as formally specified in documentation, presentations and guidelines, city.people.light workshops, as anticipated in Chapter 8, like all events, are largely depending on the "human quality" behind them. Each workshop represented an opportunity of validation and verification for the entire city.people.light team and approach. On the one hand, it can be stated that city.people.light processes and facilitators have been trained through the years, at least since 2011, with a core team providing stability to the performance. On the other hand, at each event a number of changes, from macro to micro, were to be implemented, sometimes on the go, in a structural drive to optimize the offer. Most of all, it cannot be stressed enough how different audiences of multicultural nature required the ability to improvise at the level of steering each and every event towards productive conclusion. Therefore, it might have been the case that presentations, as delivered, required further localization or specific teams required dedicated intervention and support. The PhD researcher, as a professionally trained speaker, addressed city.people.light workshops taking into account such various factors. Additionally, a number of details were defined to ensure the setting would be actionable. For example, in the 2006 global cycle, the presence of some 50 architectural books of various authors on display integrated the knowledge sharing in the session, offering the opportunity to lighting design stakeholders to reference their work with the latest and most advanced publications in their field. In particular, the sheer availability of the books, stocked and shipped in one plastic box from workshop location to workshop location, was in itself a statement indicating to participants a specific architectural and urban competence. One might generate countless anecdotes, from the need to improvise solutions to the management of unforeseen logistic roadblocks, however an accumulation of specific examples could not make the point clearer.

As recorded in the chapters above, an ancillary, yet mission-critical, aspect of city.people.light events lies in its networking reach, scope and power of attraction. One should not underestimate, and no one in the context of the program actually does underestimate, the value of connections made during dinners, at breakfasts or at airports, on the way. While it is the nature of a PhD study to focus on a specific feature of a central phenomenon, it might be a fascinating and valuable exercise to collect a book of informal, untold, unnoticed practices, forming the organic side of city.people.light. This is perhaps not the most standardized from the KPI's viewpoint but at times the more fertile in terms of relationships and networks. Within such a "game of relationships", the PhD researcher developed a precise profiling, both in terms of managing direct networking contacts as well as in terms of advising and consulting. In this respect, it might be stressed how the family of origin of the PhD researcher was not entrepreneurial or network-oriented in professional terms, therefore this specific set of competences was developed on an individual level, by exposure and immersion in international environments, perhaps with the journalistic professional experience as sole actionable background. It should be added how, as much as corporate and business enterprises might be attracted by the effect of the ability to connect, engage in conversations and convert relationships into business opportunities, the intrinsic constituencies of such ability remain excluded from the positivist attuned standard measurement performance and reward method. Hence, just like positivist social sciences do, corporate organizations mostly de facto eliminate an important, if not crucial, slice of life from the actual organizational and research landscape. To some extent, the constructivist choice and the specific post-modern epistemic orientation of this PhD study do represent also a reaction against such biases, therefore clarifying the intellectual roots and personal motives of the PhD researcher, grounding his scientific choices in his personal biography (Ramos, 2005).

10.4) BOOK AS STRUCTURAL MOMENT OR PRODUCT

10.4.1) Anno 2007

In January 2007, after thought leadership interviews and a four workshop cycle had been performed between June and December 2006, the aforementioned Pereira, his Philips Lighting team member, Maximilian Venzke, and the PhD researcher met at Philips Design to discuss how to edit and complete a book as the final deliverable of city.people.light "2". At that time, the PhD researcher had already matured a solid experience at journalistic and copywriting levels, plus the accomplishment of a university "doctorandus" level thesis, partially published in Italy. However, it was the first time he would act as editor and ultimately responsible of such a complex and extensive publication. While negotiations were relatively fast, leading to a tight but feasible planning and demanding deadlines, a number of specifications were devised with the purpose to increase efficiency and effectiveness of the editorial production, namely the inclusion of a technical report as available from the Bartlett University as a separate appendix and the decision to include thought leaders' interview quotes from interview transcripts as not attributed, therefore avoiding the lengthy complication to earn formal approval for legal and liability reasons. The bibliographic references, considered at the time a quality improvement with respect to the 1996 book, were based on the 50 books that were actively consulted at each workshop. The final design of the book, on which the PhD researcher did not have any final decision-making executive power, was

automatically assessed as to be fitting the mandatory Philips identity guidelines. While the project was consolidated in a specific proposal, that became the basis for a customary service provision contract between Philips Design and Philips Lighting, a number of solutions were adopted on the go, as they were not anticipated at that stage of briefing. For example, half way along the project, with the first feedback loops already active to discuss the draft text with Pereira and Venzke as commissioners, the PhD researcher realized that limiting the text to a preliminary analytical section and an appendix would leave the 120 visual sketches representing a concept unexplained for the reader, resulting in a blank book of illustrations. This danger had not been discussed, since the 1997 book was edited in such a fashion, with a division of textual versus visual components. However, in the case of the 2007 book, the aim was (also) to improve the city.people.light editorial product. It was therefore decided to adopt captions for each page, ensuring that every single concept would be introduced with a few lines of pertinent text. The production of such additional batch of micro-deliverables was relevant in terms of time impact and required additional loops with Pereira and Venzke, to verify the technical appropriateness of what was added. However, the final result justified the additional effort, also substantiating the co-authorship at a deeper level than plain reviews of socio-cultural content.

The book launch was designed as a major event, held in Rotterdam with 500 guests, from stakeholders to specialized press, where the PhD researcher moderated two panels on social and environmental sustainability with a selection of lighting designers from the 2006 global workshops. The reception of the book was mixed. Also due to limited distribution, Philips Lighting kept the book within reach only for selected audiences, who have been generally very positive to positive. At Philips Design, the project more in general was not considered further than as the refreshment of an older program, hence, in the abundance of innovation platforms, programs and projects accomplished by the global service unit in 2006-2007, the book went largely ignored and not profiled or promoted as was the case for the 1997 publication. In the half decade after and further, the book remained instead a reference for the PhD researcher, from his own consulting practice to academic lecturing, through international conferencing and this PhD study itself.

10.4.2) Anno 2014

The above process might appear rather pioneering in its mix of planned and improvised editorial and design solutions. For the PhD researcher, in 2010 a relatively seasoned author with two business books in his portfolio, it was however the nature of the editorial work, including writing this PhD thesis, to, once again, “build the plane while flying”, as anticipated above, namely to adopt a very precise and rigid structure, to then play in the interspaces and with its interdependences at the level of practice, sometimes following intuitive leads or sudden tipping points. In the case of 2014 *“Create the Livable City”*, the 2007 book blueprint was a natural and solid reference, however one of such moments of intuition happened during the last expert interview rounding off the panel of eight participants, in Hamburg. During the related trip, the PhD researcher realized that a gap existed between the targeted amount of text (20.000 words circa) and the actual available research materials from 2011-2013 research activities. As the editorial production of the book was planned in a few weeks, no opportunity was there to compensate for this gap by means of additional research or spin offs. It was therefore in a moment of solitude that the idea emerged, almost subconsciously, to generate additional text by writing dedicated “philological” pages to articulate the connection

between 2007 sketches and 2014 full blown concepts. This intuitive solution offered a number of unexpected benefits, both rational and emotional, including leveraging city.people.light assets from edition to edition (transfer of existing 2007 sketches into 2014 publication), re-activating older materials by circulating them again as part of a new publication and establishing historical context, texture and ultimately additional credibility for the new 2014 concepts. The PhD researcher proposed this idea to Hansen and with his preliminary positive feedback, discussed it with the commissioners, who appreciated the opportunity to create continuity between 2007 and 2014, as herewith summarized. This editorial solution became one of the new pillars of the 2014 edition book, as it offered the opportunity to activate a much tighter and more demonstrable connection between theory (in the form of socio-cultural analysis governed by the matrix) and practice (in terms of consolidated concepts represented in mock up photography). Also, the co-authoring loops with Rosenius remained specifically focused on respective competence hence the editorial flows were separately produced and integrated at given moments. This resulted in a fluid textual progression, once the different modules were assembled. A number of 2007 features, from the unattributed quotes to the bibliographic references, were maintained, although for example bibliographic references were identified in 2014 within a corpus of books that represented the actual basis of desk research since 2011, whereas in 2007 bibliographic references were reporting a number of workshop consultative sources.

The launch ceremony was more sober than in 2007, since it was held in Frankfurt during the Light & Building Fair, with some 75 key stakeholders only and just a one hour speech, and more official, as it starred the President of Philips NV, Frans van Houten, and the CEO of Philips Lighting, Eric Rondolat, with direct contribution to the speech by Van Houten. The critical reception of the book was generally positive and promotion by Philips Lighting has been focused and effective. Philips Design was not involved in any way, not receiving any copies of the final product at a later stage and not endorsing or embracing the project in any fashion.

10.4.3) Reflexive Observations

Both books were conceived, drafted, written, edited and completed in 4 to 6 weeks in total, with preliminary elaboration of materials, both textual and visual and required additional review by an English mother tongue copywriter for linguistic simplification, harmonization and correction when needed. Both books went through a typical creative process always experienced by the PhD researcher when writing complex editorial products under tight deadline, going from phases of relative apathy to phases of total immersion, with important creative blocks on specific phases and burning accelerations when a tipping point is, mostly subconsciously, was reached. Additionally, the writing component of city.people.light should not be interpreted as a consulting task only, as it largely contributed to the construction of an ideal self-image at professional level for the PhD researcher, whose ambitions as a writer date back to secondary school and determined, together with business analysis and financial necessity to generate a sustainable income, a great number of crucial professional choices. In this respect, one might surely speak of an existential dimension in writing books or perhaps of psychological dynamics of the highest symbolic order, as analyzed in the 1994 university dissertation by the PhD researcher, on the psychoanalytical grounds of the creative process in applied arts and advertising.

10.5) MEMOING

In Chapter 5, “Memoing” was isolated as a relevant research technique. Without entering into technical details pertaining any specific research project, it must be highlighted how this practice has been adopted by the PhD researcher as modus operandi since his university years. Within the context of city.people.light, memoing was inscribed at different stages of the research, editorial and workshop processes. At research level, the production of several Moleskine format handbooks of notes, schemes and ideas were the stapling infrastructure to memorize any running ideas, e.g. adaptations of the research content referred to single presentations and sessions. These series of handbooks, mostly Moleskine, at first archived in good order, constituted an informal catalogue of gestures and sketches behind applicable adaptations of city.people.light research. However, it must also be specified how, with the sole exception of this PhD study, such notes remained untouched through the years, as if they had lost their validity after the execution on the basis of their original specific intent. It might be additionally recalled how the PhD researcher developed, in the past, the habit to print presentations and specific information for speaking engagements, including city.people.light workshops, and to use them during travelling and at the events themselves, to then destroy them at the moment of departing his hotel room, in a sort of cathartic ritual marking the end of a peak of performative intensity.

At editorial level, memoing influenced all steps, starting from the very conception of the actual structuring of the book chapters according to a navigator indicating the tentative content of each double page. This is a typical editorial design approach that the PhD researcher learnt during his formative years in journalism and remained as a recurring way of working. Additionally, it must be mentioned how the PhD researcher would spatially organize the research materials, in a magnified scheme replicating the urban futures matrix over the floor surface of an entire room, to engage with a rather plastic process of content management, based on notes, sketches, and the recording of the possible motives and topics on loose pages to be flexibly organized and reorganized according to organic progress.

As based on these examples, one might indicate that the city.people.light books were the result of a rather open research protocol, where the actual framework provided the guidance required to enable a very dynamic flow based on *abduction*. Here, one might see the rationale determining the PhD researcher in this specific modality of inference, given its pervasive and extensive presence throughout the entire city.people.light spectrum. Such spectrum comprised as well very fast turnaround, tactic moments of delivery, including for example final synthesis of each workshop, which were developed in real time, on iPad devices, at the end of the concept phase, after presentations and while teams were assembling mock ups. This writing modality was largely based on a very essential overview of five to seven bullet points for each concept, generated while the team is in the design phase. As the role of the PhD researcher in such a phase was ancillary to the workshop direction exercised by Rosenius, the emergence of every design concept could be silently observed, separately probed with Rosenius in its possible socio-cultural interpretation and repeatedly discussed with each team. This iterative process led to the specific definition of an optimal fit of emerging ideas within the urban futures matrix, complemented by the attribution of up to two ancillary cells if appropriate. Based on this fluid construction, final notes were drafted by the PhD researcher, to be then elaborated in the time gap between 17:00 local time (at workshop location) circa and dinner, usually a couple of hours, for subsequent validation in the

final phase of mock up assemblage. The end result was a draft text, the backbone of a specific report in digital form, circulated to Rosenius for technical validation and to the commissioner for early review, to be consolidated within the next couple of days after the end of the workshop into a final summary, to be integrated with sketches, photographs and additional notes where appropriate. In this latter case, one might speak of an editorial approach that works on the amplification of early meaning-making nodes, opening a semantic space of alignment for workshop participants by reframing their own organic processes into the urban futures matrix perspective, in an exercise of synthesis where memoing is essential, both in terms of its minimal text quantity (at the beginning, just a few bullet points) as in terms of its relevance, since the draft text that emerges from these memo's is due to become editorial reference and research documentation of the actual report. The above references provided just a set of examples of how informal practices of memoing, writing and editing constituted a backbone to the city.people.light output, closely interweaved and inextricably interconnected with the moments of structural representation thereof, from the books to the workshop rituals, to this PhD study itself.

CONCLUSIVE NOTE

This reflexive conclusion in Chapter 10 of this PhD study could be ideally extended to generate a second project, if adopted in terms of inspiration for a deeper analysis of sociological, psychological and psychoanalytical constituencies of city.people.light. Of course, this is not the purpose as the ambition here was to offer an additional series of insights on the Central Phenomenon and its historical and contextual roots, this time from the viewpoint of embracing a narrative modality and a reflexive priority. As an additional remark, also as closure of the entire PhD study, it might be worth to recall one last personal circumstance. In Spring 2006, the PhD researcher expected to develop a very different professional growth pattern and personal lifestyle. His main focus at that moment was on the luxury categories and premium products, which became the topic of a main research project with Howard Moskowitz and Alex Gofman, published in 2011. As a natural extension of such venture, a managerial or consulting follow up was expected in such domains, with the possible consequence of relocating to a major design capital like Paris or Milan or London. The whole city.people.light program at first appeared on the horizon as a significant delivery project, where networking skills, interviewing talent and flexible mindset as based on previous journalistic and conferencing experience were the main motivations for the assignment to the PhD researcher. At the time of performing the global study and writing the 2007 book, it was expected by the PhD researcher that city.people.light would remain an episodic event in an otherwise directed career. After leaving Philips Design and starting consulting and lecturing, city.people.light started to become a recurring feature of projects, conferences and publications by the PhD researcher, who pursued a systematic focus on urban futures only at the start of 2009. In the meantime, the world around all of us deeply changed, in ways that few foresight and futures research experts actually anticipated. In 2006, the credit crunch in the USA caused major disruption of business, however it was only in Summer 2007, when Martin Wolf, Chief Economic Editor of the Financial Times, presented at the FT Luxury Conference in Venice, that the PhD researcher perceived the risk of a global financial crisis. Progressively, the crisis eroded a number of super structural litanies and discourses, casting dark and deep shadows on the current neoliberalist model of growth.

At the time of concluding this PhD study, the economic crisis is far from over and the Western world is far from accepting that what was experienced since the late 2000's has not been a crisis but a turn of events that might mark the emergence of new paradigms, for a new world. Refugee crisis, Paris attacks, Brussels lock down are only three examples of how Europe –and in general the global horizon- are rapidly changing towards a new degree of unprecedently unforeseen complexity, at least in the last decades of prosperity and hopes. In this context, the motive of urban futures became increasingly important, a litany in itself from the perspective of technology corporations pursuing smart city business development but also a fertile field for critical thinking, antagonist practices and countercultural movements. As a key trigger, the urban futures motive offered to the PhD researcher an arena of intellectual development where perceptions and interpretations did greatly change. Whether city.people.light might be interpreted as a corporate process for product innovation or a Philips *brand theme*, it surely offered a space of transformative evolutions and revolutions for the PhD researcher as an intellectual and a design-related professional, beyond anything expected in late Spring 2006 and beyond what any PhD study might rationalize, dissect and explain. Yet this PhD study was due, besides all reasons specified in its "General Introduction", also and foremost because the clarification of the role of design in urban futures assumed the personal value of a quest to justify, validate and translate the first 25 years of a professional and personal path, elaborating the foundation for the next steps, and the last stretch ahead.

SECTION V

BIBLIOGRAPHY AND APPENDIXES A, B, C, D

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APPENDIX A

This Appendix A includes:

- Prefigured Codes organized in coding grid
- Original fragments from transcripts in their textual entirety
- Underlined selection within fragments as first prioritization for Open Coding.

The resulting underlined lines do not represent Open Codes in their final form, being transitional text from Prefigured Coding to Open Coding.

APPENDIX A: CHAPTER 6
PREFIGURED CODING / OPEN CODING
THE CONTEXT AND HISTORY OF CITY.PEOPLE.LIGHT

1) BASICS

6.1 Key outcome: what city.people.light generated

6.1.1 INSIGHTS / INTERVIEWS (HISTORY)

"The idea was -- the idea was to create on the basis of the insight, liberated by this dialogue, to create some visualization of possible concepts that would illustrate how this insight was inspiring the propositions and new opportunities…". – Stefano Marzano *(on the general city.people.light approach)*

6.1.2 BRAND THEME / MULTIPURPOSE (HISTORY)

"Then we used the words multi-purpose-strategy a lot at that time. The multiple purposes being innovating on the one hand and making ourselves visible through PR on the other hand. So there were these - I am sort of "drawing in the air now" – there were these two converging lines and it all started with the issue that there was an image gap, like Philips was doing a lot of innovation but it was not visible to –[…] Architects, and majors and city planners. So, we were doing all this innovation but it was not being recognized and seen. So, the idea was through building a platform for dialog with these stakeholders by communicating the innovation stuff. On a cyclical basis these two parts would converge and we would end up in an on-going dialog". – Laura Taylor *(on the general approach)*

6.1.3 DESIGN / INSIGHTS / THOUGHT LEADERSHIP (HISTORY)

"But maybe that is because I am an industrial designer, so we were looking very much at the market and in general at trends. So, that part was very familiar to me, like looking at, in general, trends in the society – industrial design was very much about focusing on that, and understanding it, and building upon it. But this was really about the city and I think that was - that was new to me. That was the first time that I – ja – got a deeper understanding in the changes in the city, and about how to get a grip on these challenges just by looking into futures and studying that – and get those insights". – Jasmine van der Pol *(on 1996 and general approach)*

6.1.4 CROSSROADS DESIGN VS. RESEARCH (CONTEXT)

"…a number of programs that actually run at the crossroads of design and research. And they do take into account actually the information out of city.people.light".– Rogier van der Heide

6.1.5 THOUGHT LEADERSHIP / URBAN CHALLENGES (HISTORY)

"…they were very surprised, because no one engaged with them before on a, lets say, thought-leadership project. On a project that was investigating, and researching about critical challenges in the cities - and what then -- how they could have been resolved this, with the, the help and the use of light and lighting technology…" – Stefano Marzano *(on the general city.people.light approach)*

6.1.6 INSIGHTS / VISUALIZATION / INTERVIEWS (HISTORY)

"…And third, to use the outcome of those - so, the activity of interviewing and liberating an insight that otherwise would have been remained hidden". – Stefano Marzano *(on the general city.people.light approach)*

6.1.7 DESIGNER / VISUALIZATION (CONTEXT)

"It depends on the place and it depends on the requirement, but there are places, there are projects in which our LIAS team, and our sales guys could be… are inspired by it, I would say. They are inspired when they see the documentations, films, photography, and when they are providing certain solutions, they are always – it does not matter if they are doing this on their own or if they are working with an external designer. They always show that documentation as a reference point, and an inspirational, you know, thing… So sometimes the final ideas are linked, you know, to the concept that arised during such workshops". – Dorota Slawinska *(on Architects of Light)*

1.1.1 Functional Knowledge

[Definition: *Predictive / empirical dimension of knowledge: a more deterministically attuned study of hypothetical futures that are assumed as possible to be known* (Kuosa, 2012, 32)]

6.1.8 ROADMAP / INNOVATION LOOP / DESIGNER (CONTEXT)

"…you know, our products are not favoured by all designers, and that is also not necessary, but we can be favoured by more designers, stakeholders, if we simply do more interesting products. I think it is the key in the relationship between a manufacturer and a – and a specifier. And I think its often misjudged, because// […] Well, the loop makes the product – the products more interesting and more relevant […] So it is very key – it should be to our strategy. To do this kind of things. But, you know - from my experience, I can only tell you, that I always wanted to work with the manufacturers who just make the most exciting stuff". – Rogier van der Heide *(on the general approach)*

6.1.9 VISUALIZATION / OWN COPYRIGHT (CONTEXT)

"One of the plus sides was that it was Philips' content that we could use, so as visual

content, whereas all of the other references that we used, we could not use imagery, because of copyright. So, actually it helped because it was own copyright imagery as well to support […] I am trying to think back, that's a while ago, maybe we ended up scanning them ourselves actually from the book, now I come to think of it". – Lorna Goulden

1.1.2 Monitoring Knowledge

[Definition: *Cultural / interpretive dimension of knowledge: a language-based, comparative generation of cultural insights into possible future human conditions…* (Kuosa, 2012, 32)]

6.1.10 INNOVATION / UNIQUENESS (HISTORY)

"I inherited from that – I had that legacy from my processor about the city.people.light. A famous range, "Metronomis", that was "the" reference in Europe. The first ever kind of approach for a range with a lot of accessories, with a really, a clear understanding of the new needs, they are not functional needs only. And that was a… you know, really completely new approach. You know, if all the luminaire manufactures at that time were basically just doing purely more functional kind of lighting, or really purely decorative but not doing anything in terms of good lighting. And that was the first approach where the… you know –" – Fernand Pereira (on 1996 follow up)

6.1.11 ARCHITECTS' APPROACH / MULTIPURPOSE (HISTORY)

"… until Erwin Dolmans [Note: Philips Lighting Strategic Marketing function, later discontinued] *came and started categorizing the ideas. That's, when you look at the ideas, at the innovation track but on the PR track you have to ask Jos what's happening. I know that they were busy establishing the city.people.light as a kind of brand on its own for the 'Architects Approach'. So there were always these kind of two tracks… […] I think it made the whole thing tangible and kicked the whole thing off".* – Laura Taylor

1.1.3 Reflexive Knowledge

[Definition: *Post-structural / critical dimension of knowledge: a paradigm-lifting exploration of futures beyond current discourses of epistemological understanding…* (Kuosa, 2012, 32)]

6.1.12 INNOVATION (CONTEXT)

"But the thing that I find interesting, that the whole initiative is this: it is almost like you are always a few steps ahead and nobody understand what you are doing. City.people.light, I think a lot of people don't understand it. The black book [Note: a specific editorial product to report on this applicative project, not to be confused with the city.people.light books and the objects of this PhD research]*, most people don't understand it, and even through the implementation most people don't understand what we are doing. And it takes years to… for the penny to drop, to make sense of it, why do we need it, now it's like: oh, of course// […] It is a natural condition of innovation. If you think about it, you are proposing something that people haven't experienced and if they don't fully get it, it takes a while, it takes a while, so you – […] You have to kinda like*

keep calm". – Lorna Goulden (on Strijp-S masterplan)

6.1.13 BRAND THEME / NOT LEVERAGED (HISTORY)

"Exactly. I think it [NOTE: city.people.light] *is unexploited – not completely – but it is unexploited on a real organizational […] levels. It's not really a part of the DNA of Philips, yet. But it should get".* – Nils Hansen

6.1.14 NOT LEVERAGED / REFLEXIVE (CONTEXT)

"//I think you put it just right – say that city.people.light could be a trigger to kind of rethink some of the big, you know strategic steps. […] I don't think it is happening at the moment, but I wonder". – Rogier van der Heide

6.1.15 BOOK (HISTORY)

"…the relevant knowledge is captured in the book, by actually giving a clear transparency about the cities that were researched or interviewed. And lets say the architects that participated the hidden insight that was liberated in the interview, the hypotheses in terms of concept and the stimuli that all this were -- all this were generated for the possible follow up. So, the highest level of usable knowledge was in the -- in the book. And of course the book was the synthesis of what actually was collected. If - if there would have been a further interest, there was the possibility to dick a bit more in depth into what actually was available in the book but not totally, lets say, repeating what actually was collected during the interviews and during the different concepts of… workshop of concept creation". – Stefano Marzano *(on 1996)*

6.1.16 BOOK / DISTRIBUTION (HISTORY)

"It was very much present. The book was on everybody's shelf I think. […] Many people were aware of it" – Laura Taylor *(on 1996)*

6.1.17 THOUGHT LEADERSHIP / BRAND THEME (HISTORY)

"I think that it definitely create, lets say, a positive - positive image amongst the architects that we did interview, amongst the major of the city with we did interview, and of course this cascaded - cascade into the, lets say, the lower layers of the architects around the world, because we were in a sense unique - in this activity and we were raising topics and discussion that did not happen before. So, this thought-leadership was definitely created and was given a form and the attitude towards Philips was positive, and… // how much this can be quantified in terms of equity on the brand is not so simple to say". – Stefano Marzano *(on 1996)*

6.1.18 DESIGN / THOUGHT LEADERSHIP (HISTORY)

"…for Philips Design it was a success. Because, let's take the response of the media, the response of the architects, the response of the -- of the, mayor. And the second the engagement proofs that it was highly appreciated and that Philips Design was definitely recognized as a thought-leader in looking at the cities with different eyes than what was actually done until then by all the companies operating in the lighting industry and light design, design organisation, as actually we were moving from -- from only the out of the

boundaries of the traditional product design and we were entering in a new higher level of design activity that was very much intimate with architecture, urban planning and [project?] and an ambient experiential solution". – Stefano Marzano *(on 1996)*

6.1.19 THOUGHT LEADERSHIP / LEGACY (CONTEXT)

"That's also why I think that city.people.light is primarily to invest in – in a relationship, in a future relationship, perhaps, and to call that thought leadership, I don't know. I mean, I think a lot about thought-leadership these days, because I think really that Philips has had – has a long history of being internally focused, that is not a s secret, I can – I can say it just like that – and that, that does not really create recognized thought-leadership, right? It is - we do have the thought-leadership but it not very out-going, if you like. And the thought-leadership that we try to claim now in the market, that only works if it is authentic, if we really – if it is really self-generated. I mean, we can reach out to experts and learn from them, but cannot buy thought leadership. It is not for sale. It is not something that you – it is something that you deserve at a certain point. It is not something that you, just buy//" – Rogier van der Heide

6.1.20 CRM / COMMUNITY (HISTORY)

"In terms of turnover from the new – so, what they looked at were two things. They said: Ok, when it comes to, a top of mind for the architects of outdoor lighting who are they thinking of and then specifically for building lighting, or also flood lighting, lighting façades, all the technical stuff, but really that we are thought leader; the events that we organize, the feedback that we got from the events, the recognition of the thought leadership. There was a growing community, really going to Philips events to know what the latest trends, and the whole lecture program, so that is thought leadership recognition, and the media. And on the other hand it's the turnover, that all your new products, and your new program – how the turnover was and the growth in that market… […] Then we had the – the point is that it is not hit and run. If you see – […] The attitude changed. […] To continue the investment in outdoor lighting and to focus fully on city-beautification. […] It is both, about the publication around, let's say, the recognition of the thought leadership, because it was after city.people.light one there was also an involvement, another initiative with AEG Lichttechnik, where they also engaged with the architects in all kind of workshops. So actually the whole roadmap was really filled in over five to seven years time. And the relationship that Philips was recognized of being really a partner in outdoor lighting, specifically. The portfolio also was also seen as a palette for the architects who really do think about light in the city and start to sell – so we really get a higher value and higher margins in our product, and we were asked for projects we were never – […] Business points, ja. […] You should also interview people on the marketing side that were in those days also responsible for the financials, let's say, the sales". – Jos Stuyfzand *(on 1996)*

6.1.21 COMMUNITIES (HISTORY)

"Philips was creating a platform where other communities could gather and take new initiatives and ask Philips to join. Ja, that's the whole thing. Because Philips is at the end always a supplier and a commercial company, and therefore do with public tenders and processes, so the only thing you can advice… So it is a very strategic positioning of Philips that was seen as a source for city improvement, for when it comes to lighting. So, you create the opportunity, you facilitate, you facilitate processes more and more by

organizing conferences or with participating conferences, ja. Offer speakers. […] You could say, but it is also the tendency that these traditional communities, they are very locked in in themselves, that because to really give them a platform and to show necessity to get together, they – we took them out of their… –" – Jos Stuyfzand

6.2 Key performance indicators: how the value of city.people.light outcome was measured

6.2.1 BUDGET MANAGEMENT (HISTORY)

"If I remember well, it was more about our kind of, what we executed and how that went. And I remember for instance - well the - I think the - it's been some overbudget or something, so there was a lot of focus on that". – LT *(on 1996)*

6.2.2 ROADMAP / NOT LEVERAGED (HISTORY)

"So, unless we have this kind of long-term views, because these things require that, then they become at some point a good communication. But like I say, it can also hurt us because people ask and people expect. The people that ask me: What happened? You know, we did all this work and all this. You know, you told us, in two years, you (…) us – the result of it, and how – and we don't have anything to show. It was very thin. […] So, I think in that sense it becomes a little disappointing". – Oscar Pena *(on 1996)*

At earlier stage, in 1996, the assessment was based on equivalent points but way more indefinite and fuzzy:

6.2.3 NPS / THOUGHT LEADERSHIP (HISTORY)

"Well, that were those days, we did not call it the Net Promoter Score, but we – the aim was, the big aim was: We wanted to be the preferred partner for architects to create beauty with light in the cities. That was the aim. And we had a whole roadmap over, let's say, five to seven years time, where we wanted to be, ja – and positioned. So the city.people.light one, two and three – there was not really a three, but – to create a certain leadership there and to be leading in urban lighting, recognised as a leader in urban lighting, in five years time. […] Five years time, ja. […] It is a very slow moving market. So even –" – Jos Stuyfzand *(on 1996)*

6.2.4 NPS (CONTEXT)

"We do the NPS, Net Promoter Score questionnaire. And we not only measure the overall NPS, which is mainly the result of an answer: how likely would you recommend Philips to your business partner or colleague? But we also measured the NPS, the Promoter Score and the satisfaction of customer from workshop itself. So, there were two measures basically done after each of the workshop. And the satisfaction of the customer from the event was really huge, it was over 80 percent, from each workshop. […] So, people liked it. The more workshops we made actually, the more presence we got and the more push from the market we created". – Dorota Slawinska *(on Architects of Light)*

6.2.5 EDUCATIONAL / NOT LEVERAGED (CONTEXT)

"… that would be hard to measure, how they acquire the knowledge and on what kind of level, because we did not do any education, you know, testing of how much they have learned ". – Dorota Slawinska *(on Architects of Light)*

6.2.6 ARCHITECTS' APPROACH / NOT LEVERAGED (HISTORY)

"We were trying to connect, let's say, with some of the people that kind of - mostly architects, urban planners and so on. People that will shape the urban environment of the world. […] So, in that sense, light a fundamentally ingredient. Also yes, it was a big value – kind of tap into their thinking, their ideas, their desires and some other –[…] Unfortunately it was nice to have ((x)) but I don't think the organisation understood that they maybe could capitalize on that. So, I would say the value is lost. […] There is no follow-ups, there is not – I did not see there is really, how do you call it - impact.[…] - or direct impact, which maybe is not so easy to say it, to the business, but on the hand of those things need to be in some way or have to be a follow-up on - I don't really see in that sense – So, you know, it is just make a blip that happened and then everyone gets excited and then it just kind of disappears […] That's a limit of the company. There is nothing wrong with the approach, it is still sound, valid approach. The company, the people also, it's about people at the end. It is not that… " – Oscar Pena *(negative opnion on the valorization on the general approach)*

6.3 Perceived Points of uniqueness of city.people.light

6.3.1 UNIQUENESS / CRM / ROADMAP (CONTEXT)

"I think it is quite simple. I don't think there is anything else. So, as long as our leadership sees city.people.light as a way to build these relationships it is too simple. City.people.light is a way to improve our portfolio which will then improve the relationships – you see what I mean?" – Rogier van der Heide

6.3.2 UNIQUENESS (CONTEXT)

"…the approach is unique, other competition does not do that". – Dorota Slawinska

6.3.3 BRAND THEME / ARCHITECTS' APPROACH (HISTORY)

"I know that city.people.light is now the foundation of our "Architects Approach", that's how it is called […] …city.people.light has gone on to live its own life, so it's become this brand for the "Architect Approach" and the name of an award and everything, and meanwhile I am doing other lighting projects, like, we did a project: health.people.light. And then when I spoke to the outdoor people, they were like: Hey, you are using our – misusing our brand or something. Whereas I was still remembering the origin of it from Stefano's vision". – Laura Taylor

6.3.4 UNIQUENESS / LEADERSHIP (HISTORY)

"…and you know, that's the – of course if you do something good, everybody tries to do

the same thing, so to that magnitude I am not aware of, but yes, other lighting manufacturers also now invite, you know, creative guys for workshops – yes, so, yes – but probably we were the first one in '98…" – Fernand Pereira

6.3.5 UNIQUENESS (CONTEXT)

"I consider this form relatively unique, because the other ones that do exist are much more sort of student driven" – Tapio Rosenius

6.4 Educational unique value of city.people.light *(academic, applied)*

6.4.1 EDUCATIONAL (CONTEXT)

"I would rather say it is some sort of – it's – it has more dimensions, right? Not only design process, it also has an educational influence, an inspirational impact". – Dorota Slawinska *(on Architects of Light)*

6.4.2 BOOK / EDUCATIONAL (HISTORY)

"Because, at that moment I was already working with light - I got a half year course in Milan about lighting. But it was very much the aesthetics of the light so far – of course about the ambience and… – but there was not so much link to let's say urban developments, and I remember that when I read the first city.people.light publication that I finally could make that link and really think: Ja, lighting is not only to make an environment look nice. It is really - it helps to a certain extent developing and regenerating the city. And that's, I think, the main discovery… […] I was actually already – I studied already – I studied the city.people.light approach, where it – was it 2000? – When was the first? '96? […] I already studied that book in depth when I was doing my studies. I was already thinking about working with light and I was working at that period on lighting for the city of Rotterdam. I was working on a concept that would connect different parts, different neighbourhoods together and make the city or certain areas more accessible. Open up the city, let's say. So, I remember that I already studied that first publication and see whether there were new ideas and if there were already people dealing with these kind of issues". – Jasmine van der Pol

6.4.3 DESIGN / BOOK / EDUCATIONAL (HISTORY)

"I think the books are great. The first book I still have, and I still sometimes grab it and read it with great pleasure. It's the dark blue one with the glitters. It's absolutely great. I think – I think that is certainly an appropriate way to (dissipate) the knowledge and to inspire and (pollenate) more people. But also, why don't we get the students involved? You know, before, during and after. Let them curate part of such an event. Let them see how they can actually take it on board and finalization of their studies. I think that would be great. I mean I run a minor in lighting design, in Amsterdam, six months full time curriculum to do just lighting design - and I see my students being so hungry, you know, for knowledge, for – for this connection, with their idols, with their – or just with professional designers. And because of that eagerness a lot will come out. It is all about creating desires". – Rogier van der Heide

6.4.4 EDUCATIONAL (CONTEXT)

"I think definitely yes, because we have a trained – on those workshops we have trained over 200 architects of 100 studios, architectural studios, the biggest ones in Poland, basically. So, that is quite a lot. We also increased our database and we have now more contacts, direct contacts with the top ones, top studios. We also tried to invest a little bit in the "generation next", which is students of architectural faculties. They were also involved in the program, because it was two dimensional program, not only to architects but also for the future, a long-term one". – Dorota Slawinska *(on Architects of Light)*

6.4.5 EDUCATIONAL (CONTEXT)

"…in our program we paid a lot of attention to giving people ((x) 30:46), more technical knowledge and to show them how the project could look like in the end, in the real life. And not only be just, you know, idea and thing that it is not – could not be in a certain space forever, right? […] So, the technical knowledge was important for us and we wanted to teach people how to do it, how to the lighting design properly also". – Dorota Slawinska *(on "Architects of Light")*

6.5 Financial Ownership

6.5.1 BUDGET MANAGEMENT (CONTEXT)

"I think it is very hard to fit that in a corporate financial approach. I think that is a real challenge. And then on top of that, I think, it is very important for the donor, the sponsor – in this case it's Philips, but it could be another company – to also create really the behaviour that further builds that circle into a network and then also taps into the – you know, the benefits of it. I think - I think that's an approach, which is not necessarily compatible with the every day business of selling lights". – Rogier van der Heide

6.5.2 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)

"Yes, that is the, you know, that is always – the ownership has always been with Philips Lighting, clearly […] …it was my core responsibility […] …It has always been a Philips Lighting program, then we commissioned, we outsourced part of that execution to Philips Design in 2008, and then also in – sorry in '98 – and then in 2007 we also used in terms of facilitation of some of these workshops, we also used their expertise in facilitating these, you know, these workshops, and also to help in offering the book as well. But the program was always funded 100% by Philips […] Lighting, yes". – Fernand Pereira

6.5.3 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)

"At that moment in time, we talk about '94/'95 and even before, I think Philips Lighting Outdoor was leading in technical road lighting. So I mean the grey boxes on the pole, they were really looking like grey boxes. Ok, they were stylish grey boxes, but still grey boxes. And there were two movements going on. One was about new lighting technologies, still traditional but gas-discharged… lights were getting more compact, also new light-guiding-systems like light pipes, it's called. They were doing experiments, and that was a completely different market, it was less technical, it was more a market were you could make decorative lighting for street lighting, actually. They did some

exercises with the light column, it was one of the first, but not very successful, because Philips was not known – only known for technical lighting and the architects thought Philips was not really appealing. Another tendence that was going on was that, and that already went earlier, was that for instance in France that the public – the urban development budgets were reallocated. I think that happened "decentralized" from – first was Paris and then distributed over France, meaning that Paris took the biggest part of the budget and the rest, the leftovers were for Bordeaux and Lyon. They reorganized that, they decentralized – all these cities would start their own urban development plan. And I think that happened somewhere in the 60s already. And Lyon took the initiative to develop, they were a very dark city actually, and you probably remember from the past driving through on your holidays to the south – took the initiative to make a master plan to really make – to revitalize the city, refurbish the city. And it took lighting as a sort of driving – as one of the driving elements, also to compete with Paris, to be honest, because Paris traditionally is the city of light. And they really did it their own way and they also took modern streetlight as well as one of the elements in there. So, in France because of the re – the decentralisation of the budget, there was a huge market potential also for what we call now "city-beautification". And that was – there was a new market popping up and Philips was into technical lighting, they did some exercise but they saw they did not get access to the market, so at a certain moment in time it was decided to make a bigger plan – a master plan, how we can reposition Philips Lighting Outdoor – […] It was decided actually by – and now I forgot his name – […] The function, he – actually, he was at that moment in time the factory manager. […] Because at those days – […] In Miribel, yes. Yes. Ja. Ja. At that moment in time. This guy was a very visionary guy. […] …because those days the factory manager had really all the power, they did the development program, they were responsible for the sales, there was a strong influence from the France environment – French environment, the market directly on this factory, because that has to do with the history of Philips Lighting, they bought all kind of companies. When they bought Mazda, there were all kind of companies in there - Mazda not to confuse with the car brand, but Mazda was bulb brand actually, but there were also all kind of luminaire companies, one is Mazda, the other one is ***[OMISSIS],*** *and they popped up everywhere. So, at that moment in time, all these factories coming from Mazda brand actually, they were fighting for their, let's say – their life actually to… in Philips, they wanted to continue. So the factory was quite autonomous in their development and together with the French market. And that's why this initiative initially came from Miribel, and not from Eindhoven, so to say. […] In Philips Lighting […] …there was budget, the interesting thing is, those days, it was not such a centralized budget, but decentralized budget – so, people could be more entrepreneurial around this factory and take risk and – […] From the factory. Later, some money was coming from Eindhoven, Corporate Lighting. But in the beginning it just came from Miribel. […] our budgets were the budgets from the business, so".* – Jos Stuyfzand *(on 1996)*

6.5.4 BUDGET MANAGEMENT (HISTORY)

"There was more time available in those days, if I think back in '95/'96, before we became this Global Service Unit and - we weren't so bothered about budgets and that kind of thing". –Laura Taylor *(on 1996)*

6.5.5 BUDGET OWNERSHIP (HISTORY)

"At that time -- at the time of the first project it was absolutely an initiative based on intuition. From my side, it was not a request from the lighting business, it was an

absolute initiative from my side to create indeed a provocation to the lighting business. Eh, what actually was relevant for me was to liberate insights […] ...it was an internal -- in was an internal investment of Philips Design". – Stefano Marzano *(on 1996)*

6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY)

"I think in those days it was even more clear between the functions, what Design did, what – You know, Marketing did more – was more about the immediate MarCom and Sales in those days and then technology. So, in that sense Design did that kind of strategic marketing role in those days. Ja, what made it – why could not anyone just run it? Well, in a – the first one – the participants were all designers, and then in the 2006 workshop, the participants were not - but it was facilitated in the creative process". – Laura Taylor

6.6 *Post-event / post-program applications*

6.6.1 MARKETING OWNERSHIP / ROADMAP (HISTORY)

"…at that time there was this function Strategic Marketing, and they owned and managed an innovation funnel". – Laura Taylor *(on 1996 follow up)*

6.6.2 NOT LEVERAGED (CONTEXT)

"…the black book [Note: a specific editorial product to report on this applicative project, not to be confused with the city.people.light books and the objects of this PhD research]. *Ahm, it depends how you define continuity, really. We – it was definitely – I mean, by the very fact that you reference it you cannot help that it influences, but I would not say that the sort of approach or even the people that were involved were involved. So, the continuity is more conceptual than it was – […][…] it is difficult – to be honest, we actually tried to make continuity. But as I said before, the content was so abstract, it was not massively helpful in the end, when it actually practically trying to come up with solutions that could be practically implemented in a context. We referenced it with a desire to create continuity, but it was a little bit of a struggle, it was a little bit of a false fit… So, it is certainly influential, but then - and this is the thing I find difficult, when people want to try to track back and say: where did that come from? You know, from a creative process, you can never – […] – specify… […] …There are many, many resources that were inspirational, many. I mean, we did quite intensive research and then as we started developing scenarios really in this specific context and the visualisations, it was important too, as a part of the communication, this was the intention to make it much more tangible, to show more examples, to show that it is not plugged out of thin air, but it's actually been sort of consequently generated from multiple sources, that's how we do our creative ideation. So all of the examples, I mean in the book, its not just city.people.light but all bunch of other resources are referenced as to what / where the triggers came from, where the ideas came from. Also an important part of that was to show kind of feasibility and relevance – and I think the connection with city.people.light is that: look, is matching with the future visions that have been generated by experts in the field".* – Lorna Goulden *(on Strijp Masterplan 2008)*

6.6.3 NOT LEVERAGED (CONTEXT)

"I wish city.people.light is more pragmatic and more about real projects, I mean, I would

not mind that the next city.people.light is in Toronto where I am working with the Chief planner of the city – you know, and where we really zoom into their very specific needs, and challenges and I – I think, you know, it does not hurt, I think, that city.people.light will get some sort of pragmatic dimension. […] //it's actually, you would see in an ideal road-map that city.people.light becomes an actionable tool – it is now an non-actionable approach, where it is now a, you can call it, thought-leading or you can call it academic or you can call it innovative, you can call it a strategic// […] I would like to be actionable in the real environment that these governments are dealing with every day. I think more people would then benefit from city.people.light – I think we would make a greater contribution to the quality of life. I think we would get a better return on our investment – and I think as a much better and tighter connection with the businesses//" – Rogier van der Heide

6.6.4 CHAMPION (HISTORY)

"A champion, I mean those things cannot – most unfortunate – they can die – they don't get the real momentum. And those, for me, those type of program they should be done for 10 ten years – not – especially, maybe a little different now, maybe we are developing products at a much higher speed, because the technology we are dealing with// […] //much faster. But you know, unless you really have a champion that says, ok, for 10 years I want to do this, because I want to achieve this, and in the first 5 years I want to plan in the scene, and with this city I want to do this – then it just becomes a nice kind of– almost – for me it becomes a much more communication and PR exercise, than are really fundamental, mind-change, mindset of the approach of the company". – Oscar Pena

6.6.5 DESIGN / BOOK / ROADMAP (HISTORY)

"Philips is actually the supplier of the light source, of every disc that makes up the façade [of the Opera Department Store in Seoul, 2003]. But that is just a piece of technology with no intelligence. It just is the LED. And there are four of them behind every disc, red, green, one more green and blue. And the whole software system, network, driver technology, optics and the whole interaction and interplay between light and the material of the disc, it has been designed and developed by me and [Hollands Licht] my team […]://it was a conceptual thought. But there was never ever somebody who said: now it is possible. And maybe we were almost too early, because every single piece of technology had to be adjusted or partly at least rethought. […] So, it was a ground-breaking project. It was the first time that something like this was possible, it was indeed foresighted by city.people.light. There were these ideas, you know, also in the book by the way". – Rogier van der Heide *(on 1997 book)*

6.6.6 BOOK (CONTEXT)

"Well, one of the things that made it stand out particularly was that it was not internal, but it was actually more collaborative and external. Which I think for its time was quite forward thinking. So, getting together with the architects and experts and travelling around the world to actually talk about it in context. But I know that we referenced the books for the development of what we were doing in Eindhoven, and the actual – the thinking was very inspirational, but the articulation of the thinking was way too abstract. It was almost impossible to translate that in – it was very difficult to translate that into something tangible". – Lorna Goulden *(on 2007, applied to 2008 Strijp Masterplan)*

6.6.7 BOOK (CONTEXT)

"…the black book [Note: a specific editorial product to report on Strijp Eindhoven applicative project, not to be confused with the city.people.light books and the objects of this PhD research]. *Ahm, it depends how you define continuity, really. We – it was definitely – I mean, by the very fact that you reference it you cannot help that it influences, but I would not say that the sort of approach or even the people that were involved were involved. So, the continuity is more conceptual than it was – […][…] it is difficult – to be honest, we actually tried to make continuity. But as I said before, the content* [NOTE: of the city.people.light 2007 "White Book"] *was so abstract, it was not massively helpful in the end, when it actually practically trying to come up with solutions that could be practically implemented in a context. We referenced it with a desire to create continuity, but it was a little bit of a struggle, it was a little bit of a false fit… So, it is certainly influential, but then - and this is the thing I find difficult, when people want to try to track back and say: where did that come from? You know, from a creative process, you can never – […] – specify… […] …There are many, many resources that were inspirational, many. I mean, we did quite intensive research and then as we started developing scenarios really in this specific context and the visualisations, it was important too, as a part of the communication, this was the intention to make it much more tangible, to show more examples, to show that it is not plugged out of thin air, but it's actually been sort of consequently generated from multiple sources, that's how we do our creative ideation. So all of the examples, I mean in the book, its not just city.people.light but all bunch of other resources are referenced as to what / where the triggers came from, where the ideas came from. Also an important part of that was to show kind of feasibility and relevance – and I think the connection with city.people.light is that: look, is matching with the future visions that have been generated by experts in the field"* – Lorna Goulden *(on 2007, applied to 2008 Strijp Masterplan)*

6.6.8 HORIZON 2 (CONTEXT)

"We are at a fundamental thing so - also we, sort of, we put it in to the book, in a kind of subtle way, as a, you know, they were specifically asking for lighting, public lighting. But then when you obviously think ahead in the future of lighting, you, it is difficult to separate it from other things that happen in the city space. Cause you, you got power, you got information, data, and already we were aware of that but we - so we brought in a couple of the sort of relevant requirements for example triggering some of the interactions: we are having a tag-system, we are having a data system, so they kinda prevent the scenarios, they had nothing to do with light but they were to do with the ability to interact with light. And then it was a few years later that the sort of penny dropped and the discussion started going to installing a complete sensing network". – Lorna Goulden *(on 2007, applied to 2008 Strijp Masterplan)*

6.6.9 NOT LEVERAGED / NETWORKS (CONTEXT)

"…networking was not part of the, sort of requirements or deliverables and there was not budget or time or – […] I think it comes back to the - if you look to the city.people.light network and the people on the particular content. Again it is very theoretical and very abstract. We were working on something that was extremely tangible to be implemented, and we had a limited budget, an extremely limited amount of time and a limited team, because of the budget and time, and it was just completely not practical to suddenly start

trying to contact a vague abstract network". Lorna Goulden *(on Strijp Masterplan for Eindhoven, 2008)*

6.6.10 DESIGN / ARCHITECTS' APPROACH / MARKETING (CONTEXT)

"Well, in Poland we define creative specifiers mainly as architects. Architects ***~~[OMISSIS]~~*** *owning or working for big architectural studios. For dealing with designs and projects of big stuff mainly, big buildings, roads –* ***~~[OMISSIS]~~*** *– my program does not approach the interior architects, who are dealing mainly with interior design of houses, so this is not the target group. […] Well, at the beginning it turned out that this target group becomes more and more important on the market and we need to find some sort of approach in the company towards architects, and I as marketing employee dealing with marketing communication, have been asked by my* ***~~[OMISSIS]~~*** *former manager,* ***~~[OMISSIS]~~*** *to develop a program and develop certain activities towards architects and specifiers. That's why I defined a working team, I asked a colleague of mine who was in sales department but who was also dealing with architects already on the market to join the group and we also asked an external architect who was cooperating with us to join that team. And together in that team, 3 persons, we had a couple of meetings to think up how it is going to look like, what instruments do we need, what kind of content, what kind of message we should have for architects, and what is the strategy, and then we decided to set up a series of activities… at the beginning"* – Dorota Slawinska *(on Architects of Light)*

FUTURES

6.7 **Innovation horizons** *(Continuous innovation, disruptive innovation)*

6.7.1 HORIZON 2 / FUNCTIONAL / ROADMAP (CONTEXT)

"And that is why I said it - it is not widely implemented across the company, I said a few minutes ago, but front-end innovation program is one. The other one that actually could go both ways, in a sense that it could also feed city.people.light, is our trends analysis department. Our group of people here that do VTA, visual trends analysis, and foresighting, they produce wonderful reports on all kinds of social trends and we could feed city.people.light with that, but we could also work in the other way. I think they could get quite some insights from joining city.people.light and building further on what is being developed there". – Rogier van der Heide *(on the general approach)*

6.7.2 HORIZON 3 / MONITORING / STRATEGY (CONTEXT)

"Well, the big challenge for a corporation is really to bring it to the market, to really find a way to close the gap between strategy and execution, and to make it easy – I categorize city.people.light on a strategy, because it is really – it is strategic information and strategic – a strategic way of creating that information – because it also serves another goal of just creating information – it is about stakeholder management, getting the insight and everything like that. Strategy is often seen as something numerical: we need to grow in that market, so many percent – it's a strategy – it's not a strategy – you know. City.people.light represents I think a more strategic view on our business. So, in that sense it – it's a constant challenge for us, to make that real…//" – Rogier van der Heide

6.7.3 SKETCHES / WILD CARD / HORIZON 3 (HISTORY)

"...some of the sketches are more relevant now, some of the sketches are still valid, some of those sketches are maybe not valid because they used a completely different type of technology. So, I would say – I would say more the knowledge than really the actual execution and how you visualised it at that moment […] And another thing is the role of city.people.light is to really to - 100% create some desires and then translate them to business proposition. I kind of see it more as a – and I still see it, if I would be asked to do something like that today – more like planting seeds, creating provocation. What if? And I think, for me that is the strongest thing – eventually no, no. Someone wants to pick one of those 'what if's' and then translate it and get it into the real machinery". – Oscar Pena *(on 1996)*

6.7.4 HORIZON 3 / SCENARIOS (HISTORY)

"Whereas in Eindhoven of course we have Philips Research in general, so I think they work on really – on really like long-term future – long future – I don't know how to say that – scenarios. Where of course in Miribel, where it is really – we need to work on products that will be introduced to the market in a couple of years. That's it. And not 10 or 20 years. And there where a lot of scenarios which were long-term". – Jasmine van der Pol

6.7.5 HORIZON 3 / TECHNOLOGY (HISTORY)

A lot of the ideas where sort of "one off" for art pieces we discovered – […] So, they are not necessarily fitting with the production processes of lighting at that time – I mean the future is another matter. Also there were a lot of ideas about personal control in the lighting or graffiti on the wall or – and again at that time, that was kind of unimaginable how that could work in terms of business models and things…" Laura Taylor

6.7.6 DESIGN / TECHNOLOGY / HORIZON 1 (HISTORY)

"But it is the specifier, the designer, me, really driving with the respective manufacturers. So, it is the control software, was not capable of, you know to controlling the large number of channels. So, we were pushing to change it. The optics were not precise enough to avoid spill light, so we were pushing to change it. We did not want to have RGB, red, green, blue – we wanted RGGB, because it gives a better colour balance – no one had ever thought about it – and we pushed them to make it. So, indeed that project in all directions was driving innovation// […] // it did not do anything that was not done before, it was a very smart combination of existing technologies into something new. And I also believe, that is really what innovation is nowadays. It is not always finding the new fundamental technology. Innovation is really also sort of rethinking the configuration of technology". – Rogier van der Heide, about the Seoul UNStudio Department Store project, 2003

6.7.7 STRATEGIC MARKETING / DESIGN / HORIZON 2 / 3 (HISTORY)

"…in around, I think 2004 to '08 or '09, something like that period, then, we had a function called Strategic Marketing in the business. […] And there I had a colleague, strategic marketeer and he was always complimenting Design about this body of work, both city.people.light books. And he, in his team, they had the books with all kind of tabs in it and they categorized all the ideas and sorted them out into areas of benefits they

were offering. […] Erwin Dolmans. […] – and then those would go into propositions and go into the whole innovation funnel… at that time… I think then the intelligent lamppost with the multi-levels, that was where an Horizon 2 activity was done here and the rest of it was more remained Horizon 3 options for the future […] Well, there is this sort of gap - so after - between 2000 and when you started, 2006 or '05. But I know that Erwin Dolmans sort of - his innovation funnel was in a way kind of monitoring thing, because you saw the ideas at different stages and which one were prioritized//…" – Laura Taylor

6.8 **Structures** *(Workshops, Matrix)*

6.8.1 MATRIX (HISTORY)

"…in those days the workshop was a more kind of formal and – not extravagant – but it was more of an event, you know. It was probably done in a very inspiring location, and then the co-created matrix was - would have been delivered - they would have spent one or two days, really going deep into that and understanding what the architect said, and sort of digesting it all before they even began on the stories. And it would have been a long… five full days with a number of people – ten or more people, maybe fifteen. So, it is not that the things were – maybe they were disconnected physically, the people, but the information would have been very carefully – […] -- processed and digested by the ones doing the sketches, and I think in the subsequently it was all more - fast, was not it? It would have been 2-3 days and it – also the participants, the architects were probably less prominent, and there would have been more different stakeholders as well". LT *(on 1996)*

6.8.2 STRUCTURE (HISTORY)

"Not because it is in a structured, an established structure, that is – where you can really say: ok let's go 1996, 2000, 2004, let's see what has been done, let's see what has been done, let's not repeat what it is. More like much more personal interest, curiosity of the people, the individuals that really – not 'cause we have a system, a management system that allows to trace back, to make references, to make new connections, to understand what has been done". – Oscar Pena

Another quote described the different hierarchies and operational modalities across interactive moments.

6.8.3 WORKSHOP / TECHNOLOGY / ROADMAP (HISTORY)

"So, we decided to do it in a - using workshops, because then you can get, you know, the people together for a burst of activity. Then we ran a business workshop, so that was with the marketing people, so really looking at all the marketing trends, what is going on in the cities, and then we ran a technology workshop and that delivered a kind of technology roadmap, so then we could see, of the ideas in city.people.light, which ones could be made when. Then with the lighting - what was it called? LiAS, it has a – LiDAC at that time – L I D A C – […] L I A S. […] Lighting Design Application Centre it was. So, we ran a workshop there, and they came with more ideas and application ideas. So, then I had these three kind of different - still functionally different kind of conclusions…" – Laura Taylor (on 1996)

6.8.4 MATRIX / DESIGN (HISTORY)

"[…] And then we put it all together in the matrix of Josephine Green [note: the FutureConceptLab consultant assigned to the project]*, with the 24 cells, and we packaged all the workshop results, so it was a kind of layer, so you have technology view on the matrix, the marketing view, and the LiAS view. […] So, you had then - you have a kind of feasibility from the technology. A kind of what the market wants. Does the market want this, yes or no - for each cell, for marketing… And then the lighting design. They more gave examples on the matrix like: Well, this is already existing in that city, or they gave their opinion on – remember the clouds and the rocks and the rain? […] They sort of gave their opinion on that… We heavily used that matrix and those six columns as well. […] The sort of binding factor - keeping everything together". –* Laura Taylor (on 1996)

6.8.5 MATRIX / BOOK / DESIGN (HISTORY)

"I recall a couple of extra steps now: so, we had those three overlapping matrixes, and then we had a design workshop to think about the exhibition and what should be in there – so, you were sort of designing for real, but also for an exhibition, if you know what I mean. They should be things that we can realistically make in the future. […] So, it was more like interpreting them. […] So, if you had a sketch of an idea it was like: how do we actually going to put that in an exhibition, or how – what does it mean if it was a product? […] So, a lot of it came from the book in fact…" – Laura Taylor *(on 1996)*

6.8.6 MATRIX (HISTORY)

"…you know, it [NOTE: the matrix] *is still kind of very valid today. Well, it may change how we translate them: technology maybe helps us in making more valid. But there is still a lot of those thinking, in the segmentation also, how those cities - where – I forget about it, all// […] // the matrix... […] I use it as a kind of reference, because it still – I see it as a still very valid matrix". –* Oscar Pena (on 1996)

6.8.7 MATRIX / VISUALIZATION / WORKSHOP (HISTORY)

"Sociocultural information. Actually, this workshop was lasting one week and I can remember the first two, three days it was cracking our brains to understand the socio – sociological context and what the role of lighting was and what it could be, before jumping to products or more scenario-thinking. Well, the scenario-thinking is also if you ask an ((architect) 36:53) to create a scenario, it is not the story he is telling, it is just solution, something that fits in his architecture or creates a new kind of shape, those kinds of things. Those days that was absolutely irrelevant, it was more the role of lighting to illustrate that and to make a – to visualise in an attractive way so it inspire people for the next step, to come up with a solutions. […] Inspiring…" – Jos Stuyfzand *(on 1996)*

6.9 Forecasting Rationale *(Falsifiable Forecasting, Genius Forecasting)*

6.9.1 DESIGN LEADERSHIP / MATRIX / STRUCTURE (CONTEXT)

"Could you just copy-paste the approach? […] You need the people approach first, so the sociocultural trend-analysis work upfront to understand – […] But it could be also a

sociologist and a forward looking designer together to also structure the information into a triggering, inspiring way". – Laura Taylor

6.9.2 DESIGN LEADERSHIP / UNIQUENESS / INTERVIEWS (HISTORY)

"…the first city.people.light it has been my invention of -- in an example of what I would define as a multi-purpose strategy… […] As I mentioned, I did not have any key-performance indicator to, lets say, at upfront-- because it was also first of a kind, so it was never done before and therefore I did not know what I could have expected -- when actually we started with this, and we selected the cities, and the mayors, and the architects to be interviewed, I was not yet even sure that they would have been, lets say, engaging -- and that they would have accepted to do this. So, it was really, lets say, like -- like a research project: I had a hypothesis, I had a number of questions that I wanted to do -- to get answered, but I did not know where and where I would arrived after -- after the first effort. And so it was actually a learning by doing, so getting answers on the go and after the first response, positive response, of the mayor and the architect with which we executed the interview". – Stefano Marzano

6.9.3 SPIN OFF'S (HISTORY)

"So we have done a few kind of spin-offs, trying to follow the methodology. So, some people will understand it better, some people will understand it less, you know. I think - we have done office.people.light. So we have done a few spin-offs, using certain aspects – or maybe another aspect – or maybe, you know – we took maybe our own interpretation for different reasons – our (…) for resources – and I know a lot of people that would not try in – or maybe they must do something of much more smaller scale, maybe more focus". – Oscar Pena

It might appear contradictory: a relatively loose and flexible research process, based on informal practices and –possibly- on research practices of "genius forecasting", enabled the definition of what designers perceived as systematic "structuring structure" of references for their everyday design practice, where frameworks and constraints are actually required to define the briefing as the basis for the creative project:

6.9.4 DESIGN / STRUCTURE (CONTEXT)

"…You know. […] I think it gives a framework, also. It's not about the sky is the limit, or it's about creating science fiction, but it gives you a framework – this is the framework, and this is the boundaries: try to create - within this boundaries try to see what can you create. And I think that is quite important to have those things. And as a designer we need boundaries. You know, in design, for me the biggest mistake is, when they tell us: do whatever you want. For me it is the worst thing that someone can tell you to a designer". – Oscar Pena

6.10 Forecasting Techniques *(Generating, Integrating)*

6.10.1 BOOK / NORMATIVE (HISTORY)

"For me that was – you know, when you first read the book, you know, you clearly understand the – that there was a vision already at that time… and that… – When I talked to a lot of customers, you know – they still have this vivid memories, you know,

about all the presentations that went at that time, you know, and the involvement of the various stakeholders, the workshops, and also the exhibition itself, and the book, then and... So it was a clear milestone, it was really the start of something new in terms of urban lighting strategies, in a way. And I think that was, you know, a unique opportunity, and I think no other company had that legacy, you know, about having something great that even our competitors copied in a way in terms of certain outcome to just – and we promised at that time that we will go back, so it is continuity as well of something really solid in terms of research itself, and the way, and the interviews with the key architects and, you know, thought leaders, also the workshops. So everything was solid in a way, and then starting something new - out of the blue with no connection would be a strategic mistake. Because at that stage it was still known in the market… So why not making that connection and we promised that we will come back and revisit it, so it is a long-term commitment as well like: We are there, we were there, and we are there today, and we are gonna be there in the next decade. And also you could monitor these kind of trends, so it was an obvious choice, risky in a way that indeed, we don't control, but we are there as well to take risks –" – Fernand Pereira *(on 1996)*

6.11 Technology *(High Tech, High Design)*

6.11.1 TECHNOLOGY (CONTEXT)

"We don't want to limit them, if they// […] //can go beyond the technology it is even better, right?" – Dorota Slawinska *(on Architects of Light)*

6.11.2 DESIGN / DESIGN THINKING / CO-CREATION (CONTEXT)

"…Design Thinking, it's a way of thinking, it's a way of thinking about doing creativity. And particularly it's about iterative, it's about collaborative, and it's about being creative, and I think both approaches, both sort of initiatives --" – Lorna Goulden

6.11.3 TECHNOLOGY (CONTEXT)

"I really think that technology, engineering, architecture – I mean, traffic and mobility are of huge importance in a city. Medical care – if you just realize what the impact is of building a new hospital, how that logistically and environmentally, in terms of sustainability, impacts the city. Get these people involved, you know. It is extremely learningful" …// technology really is important, but it is actually only important as an enabler […] //in general, yes, also. So, I really think that the proposition of city.people.light, which is to put it very simple: a better city for all. Is enabled, made possible, by technology. And I don't think that the mindset necessarily is like that in Philips. But I believe so …And don't forget the technology is for this kind of stakeholders very inspirational too". – Rogier van der Heide

6.11.4 TECHNOLOGY / HORIZON 3 (HISTORY)

"Probably I will say the whole technology thing. At that moment of the first one, the LED thing was not in the horizon, it was there but it was not really there. And, I don't know, the LED technology in the last five years created a complete paradigm shift. So, maybe that's something that, I can imagine that funny enough would enable probably those possibilities that were kind of creative or make them a little more possible". – Oscar Pena *(on 1996)*

6.11.5 INSIGHTS / TECHNOLOGY / DESIGN (HISTORY)

"…the intent was more to provoke the business of lighting and lighting to actually be confronted with ideas, conceptual ideas, of new solutions that would have been challenging and provoking and the traditional, or the technology of that time. So by actually liberating an insight about also the new challenges of the city, by capturing also an insight of the architect that where actually thinking of, dreaming about, new visions and new solutions -- what actually we did visualize were concepts and solutions that were challenging the current status of technology, and therefore pushing for new questions in terms of new technology and lighting technology. And, so the, the objective was -- the want to, indeed provoke a transformational, a transformational innovation - to provoke a, lets say, a new understanding of what actually would have been relevant to research in order to create a new competitive, innovative advantage …Design was taking a leadership in showing that there were available insights - we had new insights, or anyway insights that were giving the opportunity to create solutions that were not available before, in terms of ideas. And that actually these ideas were challenging the existing technology to further develop or to open up new spaces of research to create, lets say, the opportunity to realize this new concept and this new thinking. Eh, so in a sense it was a very, let's say, provocative and creative push to develop new technology roadmaps" – Stefano Marzano *(on 1996)*

6.11.6 HIGH DESIGN / INSIGHT / TECHNOLOGY (HISTORY)

"No, it should not be. I mean, it is seductive to do that, but it ultimately will not bring us the most. […] It is one of the players in city.people.light – I think technology could be - could have a formal presence, sociology and also governance – I think you should always have in city.people.light some of the governors or the// […] I mean, in that sense, of course it is Design Thinking. I mean if you define Design Thinking as how Tim Brown does it. I think city.people.light is a fine example – he would love it. You know. It's – it's really about exploring other - other routs to a certain goal, and that goal is very obvious, and I mean, very blunt: it is creating a better city …I mean High Design in the way Stefano cultivated it, was really about insight generation, you know, analysing that, doing experience flows and all that stuff and then creating a 360 degrees experience, you know? Now, that is, ja, I mean, city.people.light is a way to see it for that if you like. I think that's a good description. I don't think it really brings it to reality but it is seeding for – for this level of ambition". – Rogier van der Heide

6.11.7 DESIGN / TRAINED JUDGEMENT / GENIUS FORECASTING (HISTORY)

"…the process of ideation and generating future options, that has to be kind of orchestrated and choreographed and - what I see with people who are non-designers is they need an awful lot of facilitating to get the ideas out. It is a metaphor I sometimes use, is: if you think about acting, so we can all express ourselves and some better than others – but we can't all go on stage and express on demand certain emotions. And I think this ideation is a bit like that – so it is kind of a trained muscle for some of these designers, they just - they get into that flow and the conditions around the workshop get them into that flow, and then they just go, and they just keep going, and they can do it for 5 days unfacilitated. And if - but if you get the, you know somebody who's job is – […] Installing or account, they are busy with other things, their brain is full of: I got to do that, I got to do this. And then you put them in a workshop and after - they might have one

idea and then they get distracted. They need another impulse… […]… If you are doing it with non-designers then you really have to plan it very, very carefully – every minute you have to plan and have to think of the purpose of it, so you can explain it to people, and give them a red thread – And then in that way it is a lot more intuitive and easy to just sit with a group of experienced or new designers, whatever, who got trained like that and just get on with it. […] //but that is a bit a controversial view of Design Thinking […] I guess, if there are people who have kind of a crossover background or, you know, if they are already doing something very similar like strategic marketing or branding, then it is a different matter". – Laura Taylor

6.11.8 DESIGN PROCESS / THOUGHT LEADERSHIP / MATRIX (HISTORY)

"I think that, you know, once again I am not an expert in that, but at least I can tell you what will not make it a design process at least: it is for sure that if we would have a bunch of engineers, would never ever come up with these kind of even process, you know, because of the way they think and the way they immediately translate into product solutions, technology, it is too stretching. So, the level of abstraction and… that you need to get first, you know, I think an engineer is just not trained even for that. It is not – […] Exactly and that's now to the credit of Philips Design clearly, is that when we decided to continue this program, or to reload it, to revitalize it – for us, ja, - I asked that question to myself: I said, ok now, do we turn to an external party completely or is there value in using Philips Design at that time. And there was a clear value. First because there is the legacy, so that means that it is a continuation, so a few people that were involved, you know, at that time and at least with the city mapping, the matrix and all of that gave continuity, so speaking the same language. And I think in Philips Lighting at that time for sure there was probably not anybody with the capabilities to go to make interviews to these guys, because they just don't speak the same language, they don't have the connections, at that time, with these guys, so we needed a partner and then – I used the right – I think partner, indeed – and Philips Design was our intellectual partner to make sure that the approach is sound and intellectually, you know, so that we can get the interviews – […] I am not sure what would qualify, you know, to say it is a design program or not, what I just can say is that in terms of understanding and mapping and structuring, you know, these mega trends and this kind of things. The knowledge was not at Philips Lighting. So, I think that design element in a way, if we call it design in that case, for sure, yes, it is then – in that case it would qualify for a design program, if that's the definition. But again, I am not an expert in how to put things in –" – Fernand Pereira

PRODUCT

6.12 Book *(Editorial Design, Distribution)*

6.12.1 BOOK (HISTORY)

"There is, well, actually there is the book if we associate your project as related somehow. But the – besides the book there is not an intranet resource for example, within Philips Design". – Lorna Goulden *(on 1997)*

6.12.2 BOOK / DISTRIBUTION (HISTORY)

"…I came across the books. But they where actually noticeably very difficult to get hold of […] No, the first book [1997] *was very difficult to get hold of, nearly impossible. The*

second book [2007], *the white book, was easier to get hold of. […] Easier. But I remember now, that people wanted to get hold of it, but there was not enough made basically. […] I think that's why the dissemination of the information did not really spread".* – Lorna Goulden

6.12.3 SKETCHES / CONCEPT / NOT LEVERAGED (CONTEXT)

"It is a very similar issue we had with the black book [NOTE: not a city.people.light product]*, as soon as someone see a sketch - ironically the black book was trying to be more tangible, but still: this is how it could be, but not, this is how it should be. And I think with city.people.light it was even more on an abstract level… Basically because the people involved in it think more pictures and so they use pictures to explain a concept. But people who don't tend to conceptualize in pictures see that picture as the black and white, you know, the concept. And that, I think is the fundamental difference, that the people who think perhaps think more in words or in numbers, they see the picture and don't realize that it is actually communicating a conceptual, intellectual concept".* – Lorna Goulden on Strijp-S Masterplan for City of Eindhoven (Black Book)

6.12.4 BOOK / SKETCHES (CONTEXT)

"I am not aware where the archive is, but I know people who are dealing with that, and they are still alive. [laughs] *[…] So, I can ask whenever I want. […] But I do have the white book, so I can see the sketches from there. […] There were no workshops. I received the book, I received the presentation, I also received a lot of PowerPoints concerning* "Create the Liveable City" *concept -before the first event started. So, it was communicated that way from the headquarters to the markets. […] We were also trained – I mean not trained but it was also deployed by webinars, internal webinars in the company".* – Dorota Slawinska *(on Philips Lighting Poland SA)*

6.13 **Storylines** *(Narrative Practices, Para-scientific Structures)*

6.13.1 MATRIX / SCENARIO (HISTORY)

"We also validated the material with the Fosters and all the architects – […] Yes, yes. And they were very pleased with the results, because the point is, if you ask architects to focus on lighting – they are architects, so lighting is one of their smaller topics, and we were very focused in the scenario, this whole, the social – " – Jos Stuyfzand

6.13.2 BRAND THEME / STORYTELLING (HISTORY)

"I say, you know – it can be a very strong element of a - for a company to position in this world of today– where it is so saturated by so many different things. I also for me – the thing I found so strong was – I am a great believer of the whole idea of the storytelling". – Oscar Pena

This specific view on the narrative potential intrinsic in the platform was present in the original design of city.people.light, with its main ambition on its media reach potential:

6.13.3 MARKETING / COMMUNICATION / MULTIPURPOSE / (HISTORY)

"The second, to, lets say, share this ideas of this representation of possible concept into

some event that could have been, lets say, utilizing the power of the media to further distribute and communicate about this concept…" – Stefano Marzano (on 1996)

6.13.4 DESIGN / THOUGHT LEADERSHIP / BRAND THEME (HISTORY)

"…set an intellectual leadership of Philips Design, in addressing themes related to light and city and quality of life, of people in the city and how eventually light could be a very relevant and strategic instrument for cities to brand themselves and to differentiate themselves by proposing very specific qualities of life for people". – Stefano Marzano *(on 1996)*

6.13.5 ROADMAP / THOUGHT LEADERSHIP / STORYTELLING (HISTORY)

"I think they before – but it is also a roadmap, because you don't ask that – there was a technology development and nobody – my team was working with the first city.people.light generation "Metronomis One", LED was not even existing. […] That is unbelievable, because we only are 13 years further now. So, I am even the last 10 years if you see what happened with LED's that we have now sports lighting and arena-vision with LED's to light a whole stadium. Nobody ever could have imagined that, so it is accelerating also the imagination, even the most technical people. So, that was one. There were in the meantime LED's and a new paradigm in technology, and how you handle that. What this first city.people.light, this first part has done on thought leadership is the storytelling. That was the strong part that you need to first tell the story about a city and then look, what do you need […] That was a paradigm change". – Jos Stuyfzand

6.14 ***Concepts*** (Physical objects, social spaces)

6.14.1 DESIGN / MOCK UP / NOT LEVERAGED (HISTORY)

"And the second feedback was in the 'far future zone' we had created this light furniture. I think you know these chairs, they also did another project with them. And we got, some of the architects did not like that, because they sort of: this is Philips doing design - you know, Philips should make the light components for me, and I will put it underneath my own chair. I don't want Philips making my decisions". – Laura Taylor *(on 1996)*

6.14.2 SKETCHES / MOCK UP / PROCESS / DESIGN (CONTEXT)

"It is helping people. This practical part and this ability and opportunity to do the mock-up on place and to see how the product could look like is extremely important for them. Because the sketch is only a sketch, right? – They can think up anything, they can have brilliant ideas, they can have very extraordinary ideas, sometimes possible in their opinion, sometimes not, and... When they face later on the real – you know, how - they have to make it happen, it turns out sometimes that what they have created is not feasible to realize, right? And they have to adjust their concept and idea to the possibilities, of the equipment, of LEDs. Basically there are a lot of things that are possible, but they don't have enough knowledge to make it happen, and that is why our sales guys and our LIAS experts on place are necessary to guide them through and show how a certain effect they have created can be made in the reality. And I think they can see, in real, you know, as this mock-up, how this lighting design project is arising actually. How is it going to – what the process looks like, right? From the very beginning. From the sketch - from an idea via a sketch to a temporary mock-up that is physical and

can reflect what they had in their mind. So I think it is extremely important". – Dorota Slawinska *(on Architects of Light)*

6.14.3 DESIGN PROCESS / DESIGN THINKING (HISTORY)

"This is a challenging question, because if I look how I started at Philips Design and my role, I was really concerned about the shape of things, the quality of the material of the products [laughs]. If I see where – I am now concerned about is: Do we really have the insights to understand to make something good. And that we can make something good, that's an implicit. But, we can even make it better, or really make something good if it is meaningful and we understand what it needs to do. And even that it gets so meaningful that we help people realize their dreams and we don't need to create the dreams for them because they can do themselves. So we make tools in their life then – so the whole role as a designer for me, let's say for me personally, has moved from being the creator, the expert, the craftsman and product design up to the facilitator in a very holistic environment to help people making choices". – Jos Stuyfzand

6.15 ***Symbols*** (Creative Leadership, Commercial Focus)

6.15.1 HIGH DESIGN / CREATIVE LEADERSHIP (HISTORY)

"…it was absolutely based on my thinking of the High Design and it was executed with this, lets say, cultural base and it was realized with the resources we had. It could have been realized with more depth, with a different level of methodology and so on. The spirit, the spirit was anyway exactly the one of the High Design, just elevating design from the role of master design execution - of the design of the product to more the role of the, lets say, the design of the architect as the creator of a plan. When I talk about 'the design of God', not because this is (…) but a higher level of the idea of design, of the plan that was typical also for the architect that it was "architectizing" – Stefano Marzano *(on 1996)*

6.15.2 BOOK / WORKSHOP / DESIGN (CONTEXT)

"I have seen the connection to the book and to the "Create the Livable City" (2011 – 2013) *– to city.people.light concept and* "Create the Livable City", *because at those workshops people had a chance to design the space in a certain format, right? They did not – it was not just about lighting design it was about creation of a certain concept of the urban space that should tell a certain story, right? […] It was not by accident. That's why we liked it a lot, because* **~~[OMISSIS]~~** *it was very connected to what we wanted to achieve here in Poland…"* (Dorota Slawinska on "Architects of Light", 2012)

PROCESS

As expressed by interviewees, city.people.light processes will be analyzed in first instance from the viewpoint of relationships across commercial and relational interests. This will be in continuity with the above treatment of equivalent topics on communication, as articulated above.

6.16 **Relationship Management** *(Community versus CRM)*

6.16.1 WORKSHOP / MULTIDISCIPLINARY / BOOK (HISTORY)

"I had a really clear goal. We had to deliver an exhibition in Paris, in 1999. So, the – which would show to invited customers and stakeholders our vision - to make it tangible. And you know, we could have just picked things out of the city.people.light book and make them, but we wanted to do a much more – to connect with the people in the business and development, and do it all together, and that is why another purpose of the translating steps and the workshops. […] Well, it did not really feel like that, because it was so action oriented, because we had to get to this workshop – to this event". – Laura Taylor

6.16.2 CRM / TRUST (CONTEXT)

"Well, first of all, I mean, from all the innovation projects that I have been a part of, it is clear that these relationships, they have to be very much build on trust and a true desire to do something together. It is not just a superficial thing - and it's not in an urban context but we did the Rijksmuseum, and it took literally a couple of years, you know, until there was enough trust in that relationship to be able to deliver, together. So, that is in the urban environment, in the public space, just the same. I think that city.people.light can be the catalyst of these relationships. I think that is maybe a good description, although it seems that the purposes to exchange knowledge or to count together to new insights, I think the true benefit for Philips is that it can build a relationship of trust, as long as Philips gets enough credit, if you like, in these – in these events, in these happenings. He? - if Philips is just the enabler, I am not so sure if that works in terms of, you know: "OK, let's define how the next step is Philips involved in that". – Rogier van der Heide

6.16.3 COMMUNITY / MULTIDISCIPLINARY (CONTEXT)

"…it is not about building communities, or anything, I – if that is what you mean – I think, that city.people.light is about going, about crossing the boundaries between disciplines. I mean it would be great if city.people.light is the platform where the urbanist also finds the, you know, the landscape designer, or even the scientists, or the, you know, the behavioural psychologist – and the – the academics. And, I mean, if you take the practitioners out of their every day …" – Rogier van der Heide

6.16.4 CRM / SALES / DESIGN (CONTEXT)

"I mean the award and the city.people.light award contest could be directed not only to architects and creatives but also to a wider public, for example the B2B sector, right? …to the municipalities to show them what we can do, how we can support them and how Philips can, you know, provide them excellent solutions. But the white book with the interviews with architects and creatives is mainly a dedicated – in my opinion, mainly dedicated only for that particular target group. […] To show them how we can support them at the beginning of the project, ~~***[OMISSIS]***~~*, how we can inspire them. And this is not directed to B2G sectors, so they would not understand it. It is another approach, another way of thinking between those two groups. So, I think it could be a part of something bigger if we combine it. It matches together, but those two things can be also dedicated to different target groups. […] they belong to the same platform. Definitely […] …We also had our sales colleagues present at the entire program, at the workshops, and their job basically was to support the teams in design phases and inspire them, that's all. […] Not to sell".* – Dorota Slawinska *(on Architects of Light)*

6.16.5 COMMUNITY / SOCIAL MEDIA (CONTEXT)

"I have the feeling that it was starting being created, because the more we did for them, the bigger push from outside we got. ***~~[OMISSIS]~~*** *So we can see perfectly well that there was an interest created outside and the interest came back to us for more – so this is already some sort of community, right? […] we did not do anything on social media, because our architects are not very active there".* – Dorota Slawinska *(on Architects of Light)*

6.17 **Openness** *(Co-creation, Contribution - for professional stakeholders)*

6.17.1 DESIGNER / INTERVIEW / INSIGHTS / CO-CREATION (INSIGHTS)

"…it was the, the interview was generating or was liberating insights off the mayor and the architect and that was used at the centre of the workshop to inspire the designers working on a concept. And so you can certainly say that this is a collaborative effort. Optimally this would happen under the same roof and at the same moment – but it is not always possible to actually concentrate everything in a co-creative activity that does happen in the same spot and in the same place. So this is co-create more, let's say, a virtual co-creative activity that has happened in the same spot and in the same place. So this is a more, lets say, virtual co-creative activity in the sense that people are not together and also a bit deluded in time [laughs] and not centralized in one -- in one place that actually could be inside a virtual space - a site, or a physical place. So, research, insight, transfer of the insight, into a process of representation of concept. So the all - the whole process was a co-creation". – Stefano Marzano *(on 1996)*

6.17.2 WORKSHOP / CONTRIBUTION / CONCEPT (HISTORY)

"After the interviews we organized workshops with our young talent and we created a number of concepts and impressions of the concept and after that we actually realized the first book". – Stefano Marzano *(on 1996)*

6.17.3 SKETCHES / CO-CREATION / DESIGNER (CONTEXT)

"I think your question should be: Can Philips be validated as a co-creator? You know? […] Because, of course, these people – these practitioners, they feel they own the sketch they make. […] //and it is, I mean, it does not – and the reality is different of course. That's a natural attitude of designers, right? But that is different because, that sketch would not have been made without that context and those people around them. It's a co-creative process. But that is not really made explicit I think". – Rogier van der Heide

6.17.4 INNOVATION LOOP / MULTIDISCIPLINARY / CONTRIBUTION (CONTEXT)

"Feedback loops in particular, and obviously other elements which is sort of iterative development and prototyping and that obviously was in there. But I think in particular it is a way of thinking to kind of to get you out of your probably quite fixed mental model - In particular for business or technology developers. So, and by doing that and by interacting with people who are from different perspectives, that is one of the kind of approaches". – Lorna Goulden *(on the general approach)*

6.18 Participation *(Participatory, Normative – for non professional stakeholders)*

6.18.1 PARTICIPATION / WORKSHOPS / DESIGNER (CONTEXT)

"No, I think – I don't think it is the right place to have citizens in, actually. I think that of course it is very – it's funny that you say that because it is indeed – I think it is one of the key things finally to do, in order to create better cities, better places to involve citizens and to make people feel part of the city, and to – ja, to get there, to create their belonging, let's say, amongst people. But I don't think that the workshops are the place to do that. I think a lighting designer and the municipalities they should work on that. I think when you do the workshops – and we discussed it actually quite a lot, too […] You could do that, but I think you should do that, but not during these kind of workshop". – Jasmine van der Pol

6.18.2 PARTICIPATION / DESIGN (CONTEXT)

"[…] Well, it is one of those sort of aged discussions within the interaction design: can you really ask users to be innovative or design the future? I am - I am in the camp that sort of says: you can have a go, but don't take what they say literally, because there people tend - unless their completely bombarded all the time with different inspirations and creative thinking - they just solve their currently problem. I just use the quote, if you ask people what they wanted around, what was the late 1800, they would have said they wanted a faster horse, they would not have asked for a car, cause they would not have been able to imagine it. And this is the same thing, if you involve people into a too abstract intellectual level, and it is not until you have something specific, that they can experience, then you get valuable interactions. That's my perspective". – Lorna Goulden

6.18.3 PARTICIPATION (CONTEXT)

"…again it's almost like a cascading level, with city.people.light it is at an intellectual level. And it would be interesting to see what kind of intellectual co-creation you would get from the baker or the old woman walking the dog, I think at the time it was more a case, probably a case of efficiency: let's co-create with people who are already immersed in that world, who were involved in the world of creating spaces in cities, so they are experts, they have the expertise". – Lorna Goulden

6.19 Networks *(programmer, switcher)*

6.19.1 SWITCHER (CONTEXT)

"This is something I have learned, that you have to get the right people in the room. And I am also allergic to these huge workshops and workshops which have, you know, too many purposes. So if you want to entertain your customers and – then it is better to entertain them and – […] Do a speech or give them a nice dinner. It's not necessarily inviting them to a workshop, because then your results will not be what you want and they will not have a good time". – Laura Taylor *(on the approach in general)*

6.19.2 PARTICIPATION / SWITCHER (CONTEXT)

"To be honest, that is something I don't know and I, I think I can only answer that is

based on perception and not really based on really – […] -- facts. But my impression is, the biggest value is the network. And I actually, I had been involved in workshops where it's basically the business development team together with architects, so that kind of mindset of interacting with end users, I think that has a influenced – […] -- Philips Lighting development, ja". – Lorna Goulden

6.19.3 INNOVATION LOOP / DESIGNER (CONTEXT)

"Now, the second part of your question is, what I call here: closing the innovation loop. There is a loop, which is: proposition setting, product creation, deployment in a market and that is where it ends – and what we really want is of course, get the feedback from that market and put it back into that innovation process, in proposition setting or maybe in product improvement or whatever. But, when we are closing that loop then it becomes like a, you know, like wheel that starts turning faster and faster. And – I think that city.people.light can play a role in there, our own lighting designers can play a role in there, you know, they are equally important – and there are other ways to do that, I mean, strategic partnership with "specifiers", we have a group which we call "value-added resellers". They do not just sell a box, they develop whole solutions, in outdoor, in whatever, in sports – there are all these implementers are very important I think, in making the next product a better proposition//" – Rogier van der Heide:

6.19.4 BARTER (CONTEXT)

"I think – And I am a strong advocate of that idea, because I think that would be great. The whole point is that the participants… […] … will only contribute in a really profound way, if they see a benefit for them. And it does not have to be a monetary benefit or anything// […] //the only thing they want really is more interesting products" – Rogier van der Heide

6.19.5 BARTER / DESIGN (HISTORICAL)

"But I knew it from a personal interest. Because I also studied industrial design in Eindhoven, on the Design Academy, not on the University. And had the kind of habit to be interested in new thinking. […] In future thinking. And not as a designer, because I am not, I did not evolve as a designer, but I like the think-tank level and that's why I was very interested in this city.people.light platform. And of course one of my, maybe secret goals or aims, was to get involved once in this// […] //in this think-tank". – Rik van Stiphout

6.19.6 COMMUNITIES / SWITCHER (CONTEXT)

"…but these networks they are all interconnected – if we manage to build that new network with people representing these existing communities, it means that we are connected to these existing communities… […]". – Rogier van der Heide

6.19.7 SWITCHING (CONTEXT)

"Through the network on a different level than the normal level, we are used to – we were also able to get in touch with other institutes on the right level, or architects or other individuals… […] Ja, you named it already. People from New York, from Mexico City, far away from Eindhoven. […] Leni Schwendinger, or Gustavo Aviles, those kind of people.

[…] The simple reason that we can invite and succeed in invite in the way that they also are accepted by project leaders and politicians, as the ones we need, is there – it's in my opinion – there is a strong relation between what I tried to build, this network, this international network with acclaimed people in the field, which made them anxious to know: what is Eindhoven; what is this little city? It is more than only the funding place of Philips. And they learned – they learned about it through the connections we provided, the people we introduced. But also, on the other hand, I was able to introduce a different scale and also a different level of lighting architects into our city, because of this kind of networking activities, which includes joining this platform". – Rik van Stiphout

6.19.8 DESIGN / SWITCHER / TRUST (HISTORY)

"Well, if you talk about architecture, that's a bigger community of course. If you talk about lighting is a very specific, very small community and I always call them the alchemists in lighting. They are really busy with the phenomena of lighting and they are sitting in dark labs – and in their own way they handle lighting and their vision. The institute in – of Paris – the lighting institute in Paris was one of the biggest laboratories in the world for outdoor lighting and lighting – city-lighting in Paris, was underground. If you went there you really had this feeling like you were in a secret environment. But I can remember when I visited I was really impressed that it existed. But what we did, and that was interesting. If we get out at these, let's say, senior architects or the partner architects, they were not willing to listen to the industry, they wanted to tell the industry what they need to make. […] But we looked at the second in charge, the younger architects, they were looking to make the difference. And they were much more open to discuss lighting and technologies, and open to the industry than the traditional architects, so to say, the seniors. So, also the first event in the Petite Palais, the, let's say, the senior guys where not there. They sent their younger architects, and – but when they came back and they saw what was happening and the publication, they started to call actively: "Next time I need to be there". […] There were a lot young architects who were working on urban furniture, smaller projects but with high impact on the social community in the city, but they were – but the architects they were looking at the master plan and the big – that was really – master planning was the big thing, well that is not a big thing anymore, because we know that communities are developing at a certain moment, and you cannot take the full responsibility, you need to understand the dynamics and the social dynamics as well. There are some good examples and there are some bad examples in the world. So, we focused on these people first, that were more interested in design as well, because architects are not really interested in design. They have a strong opinion about design, because they see it as something from the industry. And an architect he his own industry, meaning he is the project – master of his project. So before he trusts you – and that is also with architects you need to take some time to build a relationship. And that's still – I was recently in a discussion with a very well known architect and he said the same thing. You first need to understand each other and to trust each other". – Jos Stuyfzand *(on 1996)*

6.19.9 SWITCHER / NOT LEVERAGED (CONTEXT)

"The circles have not converted into networks, that's right. And I also – I think it is not easy, I mean, it only works if there is true value for these practitioners, that they just recognize in their everyday job. That's it… But the point is, you are right, of course we are in a people business, and you pointed it out correctly about your own network. And I think we all recognize that, and I don't think it is a problem, I mean, I really think that

trying to squeeze everything into a methodology - it is a bit of a anachronism now. […] I think we live in a very networked society – and we should harvest the benefit from that and not trying to be counter productive" – Rogier van der Heide

6.19.10 MARKETING / SWITCHER (CONTEXT)

"Because we had a contact with a good top architectural studios who are working for the top projects in Poland. And many of those projects where we could basically enter at the beginning phase through those architects, right? […] So it helped a lot". – Dorota Slawinska *(on Architects of Light)*

APPENDIX A: CHAPTER 7
CODING: PREFIGURED CODING / OPEN CODING
COMMUNICATION STRUCTURE OF CITY.PEOPLE.LIGHT: BOOK

BASICS

7.1 Key outcome: what city.people.light generated

7.1.1 BOOK

"…It is not – we are not in the book business, it was not about making a book only, but it was just that that would lead to something else – and that we would revisit and keep it always alive, you know, and then of course maybe with different angles, maybe different workshops, like 'Create Sustainable Cities' or, you know, other kind of programs that are derived from that same umbrella approach about outside-in, you know, views from key stakeholders into the program, always blend some more higher level intellectual analysis in a way to create some structure and to create some more in depth analysis of what has been discussed with these stakeholders". – Fernand Pereira *(on 2007)*

7.1.2 INSIGHTS / THOUGHT LEADERSHIP

"It is actually driven via marketing, so myself in my new role for example or Jaap van der Linden in his role as marketing manager for the different segments. And this is for us - it generates a trend so to speak. You see a lot of things coming back, and we take this on and then we accordingly brief also that into research and development – we give this as impulse on potential propositions that would help us in the future […] It is insight generation. And based on these insights, we on a segment marketing level we try to generate propositions for the future, and these propositions then need to be translated into viable solutions via product management, research and development, with the whole technological knowledge that Philips has". – Nils Hansen *(on general approach)*

7.1.3 SKETCHES / MOCK UP / DESIGNER:

"…the mock-up is – I don't feel like they actual – you know what we made – I think the sketches are ok, because they just show sort of ideas. And they are important. I looked a lot at the sketches from city.people.light and I think from that - they were made from all over the world and I find it very interesting to – from the first city.people.light book. So, I do think that the sketches are very important to see how actually the designers are thinking". – Kristin Bredal *(on 2014)*

7.1.4 BOOK / WORKSHOP

"… -- A critical mass exactly, of content for this kind of book. And I think after these five workshops, with the roughly 200 participants that we went through, we have quite some good content available to create this and also make it a valuable gift in this relationship process". – Nils Hansen *(on 2014)*

7.1.5 BOOK / WORKSHOP

"This idea was actually born out of the fact that what we saw in the workshops was really, ja, really promising. From the involvement of the people it was the idea also to create something that lasts for those people that can be – this book will be deployed to the participants of those events for sure. It is something that is, ja, somehow carrying a message of: we as Philips, we want to be a partner in the process and we understand what you are dealing with, and we want to be a part of the solution together with you, of the problems and challenges in urban development […] That was not actually based on the number of workshops, it is more a matter of ,let's say for sure, you need to have a kind of creative content -- …". – Nils Hansen *(on 2014)*

Functional Knowledge

Besides the above minimal level of functional leverage of city.people.light assets, interviewees indicated that there is a number of important spin off projects and products generated -to some variable extent- from city.people.light inspirational dynamics and tangibly marketed with various degrees of commercial success, however marked by clear managerial commitment to deliver new, innovative product propositions over time:

7.1.6 ROADMAP

"It was already clear beforehand how we were gonna integrate whatever comes out of that research in the roadmap, so there was like – […] There was already – I can tell you, I remember these discussions were, even in our budgeting process we had two projects in the roadmap, the official innovation roadmap, that were empty boxes called: city.people.light concept one, city.people.light concept two, city.people.light concept three. […] Whatever that would come. So there was even reservation in the budget saying… – […] upfront. Before city.people.light forum, you know. So that we said: Ok. And that – and also the level of commitment, we said: Something would come out of that research, otherwise, you know, it would have – if we say after the whole research again and the book and all of this, nothing would come out of that that would land in our product portfolio, then we would make a big mistake". – Fernand Pereira *(on 2006)*

7.1.7 CRM

"You could bring back certain innovations that probably were made just because we can, but then you can – city.people.light helps you also to find a way to argument and to bring it to market with a value […] It is not the source of inspiration, it is more a source of: oh, this is a good mechanism to also translate into a customer value". – Nils Hansen *(on 2014)*

7.1.8 BOOK / NOT LEVERAGED

"None, none. Because for me it was more of the references - in a way, you have seen my all - where I come from, my towns, the Christmas lights that you hang from the ceiling. […] So, it was no specific. I am sure there was partly a reference in that sense. In that case, I did not really look at it. But later on probably we find out some part is about de-cluttering in the city.people.light. But at that moment it was - it did not came from there. It was an old reference […] It also came from another story. It also came – de-cluttering - there were our people from – at the time there was an organisation called

Goal… […] Research, Innovation. They did a project about de-cluttering. They probably hear from the book, I am making an assumption, and they did some findings and from those finding we can relate that, that was kind of how – how we came up to that". – Oscar Pena *(on 2007 functional follow up, negative opinion)*

Monitoring Knowledge

In terms of such "landscape monitoring":

7.1.9 BOOK / OUTSIDE-IN / INTERVIEWS

"…what always made it easier for me at that time, is that the book is solid, you know, the research is solid, the intellectual is – so it is founded, the methodology, the way of mapping the different, you know, city identities and – so intellectually it is sound, you know, it is solid. And then also it was outside-in, it was not a bunch of Philips guys talking about what they think the market will be and what they think what the customers will want, no, it was really interviewing them, so thought leaders and also professionals that have a lot of experience as well in different parts of the world and them telling us, you know, what these big guys, these big architects, you know, were thinking the future will be and how they would connect with that. So, it gave always a sound, solid foundation to also top-management in a way, so to really piggy-back… saying: Yes, based on city.people.light – so, you can't believe how many – and even now it is always used as an umbrella approach saying, you know. Based on the city.people.light research and the follow-up workshops and all of these things, you know, we have done this, this and that, you know. So, that is known, it is a program that, you know, at that time, you know, our CEO knew really, really knew. It is not the same –not all the programs are known at CEO level". – Fernand Pereira

7.1.10 MONITORING

"I think it was, it is more relevant in the sense – it was almost – it was more relevant of course – it was relevant in a sense that it brought content. But it was also relevant I think as a – to learn, like the monitoring part and the reflection…" – Jasmine van der Pol

Reflexive Knowledge

7.1.11 DESIGN / REFLEXIVE

"Of course, because it helped prioritising as well, which we would have maybe more difficulty to do, and it's also – it gives that validation… If you look about concepts, then translated into product concepts, things like light without poles and this kind of stuff, these ideas are as old as lighting, as dreams, you know. These are common shared dreams, also lights like fireflies and this kind of things. So these things, everybody almost thought about them, you know. Philips Design thought about them, we thought about them, a lot of customers thought about them, you know. But it is like: Ok, so what? What do we do with that? Is that something we need to do tomorrow, do we heavily invest there? Or is it something due to – is the priority somewhere else, you know? And that helped, you know, to at least prioritize". – Fernand Pereira *(on 2007)*

7.1.12 REFLEXIVE

"…I think it is something intuitive. I think it is more into – it allows some people in the company to listen and to learn and I think that is something that builds up pure experience and pure vision and sort of things. Maybe they actually contradicted that could also be, that they don't agree, but it helps them developing them their own thoughts and their position…". – Jasmine van der Pol

7.2 Key performance indicators:
how the value of city.people.light outcome was measured

7.2.1 BOOK / MULTIPURPOSE / OUTSIDE-IN

"For us it is very clear, you know. City.people.light is what we call the umbrella approach for the last, you know – since '98, and probably for the next decade. So it's a program that has different columns, you know, pillars, and moments where we communicate or we do a certain activity, so it is a multi- indeed, multi—[…] -faceted in a way program. And one of these facet was that at a certain moment we took a snapshot of… and interviewed, you know, the architects, what they were thinking, leading also with these workshops to a book, that was part, because the program did not end there, and actually that was absolutely not, that was one KPI as well, we said….". – Fernand Pereira *(on 2007)*

7.2.2 ROADMAP / DEADLINES

"But there other KPI's, so one was that the book has to be printed on time, ja, so, for that event. Because the event in Rotterdam [NOTE: in 2007], *the date was fixed quite in advanced. So there was no other choice but to meet the deadline. So, that was one, and that put quite some people under pressure, to deliver content on the book and, you know – I think that you remember these times, having to deliver some content. So, that is one KPI, the other KPI was also the number, as I said before, the number of projects that we land in some roadmaps".* – Fernand Pereira *(on 2006)*

7.2.3 ROADMAP / PR VISIBILITY

"At that time, based on our, you know, budgeting process, every segment manager would propose the key programs, you know, for next year and then, and then underpin – you know, what are the benefits and the return on these kind of investments. […] I think, first you always have to have a good story. That is number one. […] That means that – and also convey the message where, you know, you understand why you do things and what's the benefits. And for me the benefits where two-fold: it's first to put again Philips on the map, so that is also with an event, so creating a lot of PR and visibility about the research and the outcome of that research; and then – well, that's more from my PR perspective, so almost to say thought leadership with key stakeholders. And then second was that we would have a new product roadmap, you know, so about which kind of product solutions we will bring in into the market. And there I got buy in as well from the R&D Head, at that time, because they had quite a lot of ideas, but more from a technology push, and not so much from an application / customer perspective. And that was injecting customer views in the innovation process… and clearly the Key Performance Indicators where also that some programs, at least two or three ranges should be derived from that study, so it is not just an investment to make a book for the

sake of making a book and having a nice story about the cities of the future, because we are not in selling books, ja? But it's like, based on this, we would have a competitive advantage, because we will use some of these insights already to start working on our innovation programs […] it got priority, that's the point. Because at the end of the day these programs compete with other programs and then, you know, you – with outdoor lighting – you know, we needed to be back. It is not like we were out, but in the end… […] …we needed to recreate that momentum that we are the leaders in the market". – Fernand Pereira *(on 2007)*

7.2.4 ROADMAP / INSIGHTS / NPS

"You have a mix, you have maybe some academic people, whatever – but you have practitioners there and they are ultimately the ones who make it happen. Of course enabled by the government. Ja? The city has to decide that they want it, but once that has been done and they are looking for the best solution, then I just hope that some of the findings and the discoveries of – of the city.people.light sessions are, let's say, passed on to reality by the practitioners. I think that is also - that would be a great measure of success… […] *Well, I mean the program is ultimately only successful when it also converts into real solutions, real installations, in the real life of real people - he? - So the workshop is great and it is actually phenomenal to get NPS scores that high - I don't think there is anything at Philips that gets scores that are that high. That is quite extraordinary. But the real, the real satisfaction is of course that we create a living place in cities"* – Rogier van der Heide

7.3 Perceived Points of uniqueness of city.people.light

7.3.1 BRAND THEME

"I think it is a great branding theme. […] that could be stronger actually, I think, but it is still of course – it's a bit – they come together, it is the same branding – but I think that it could be used even a little bit more. I think when the city.people.light award is now a little bit like the LUCI events, it's very much about cities and relationships and like "City under the microscope" and it is really like city – what to say – I think that – […] It is not so much about future trends, you see what I mean? It is not about – it is not so much focused on future". – Jasmine van der Pol (on the general approach)

7.3.2 UNIQUENESS / ARCHITECTS' APPROACH

'It were actually several things: One, for sure the need to increase the approach towards this target group of urban planners and architects, and also to leverage more on the business potential. Secondly, we were still unique with the city.people.light research, so it was something that really helps us also to create a valid image towards this target group. And thirdly for sure also the markets needed to have some kind of platform to interact with this target group, because we as Philips were not known as a partner in this creative process, and we needed to establish that towards the markets". – Nils Hansen *(on 2014, in terms of general approach)*

7.4 Educational unique value of city.people.light (academic, applied)

7.4.1 MATRIX / ACADEMIC KNOWLEDGE

"…the matrix has helped us - and this kind of a structured analytical semi-academic way to - to approach the project from the outside is very interesting to us. So, I think, yes, we have taken some of that on board and learned from it". – Tapio Rosenius

7.4.2 EDUCATIONAL

"So, it is – we want to – not educate, but to show the possibilities of lighting to architect and urban planners, because they don't know that much". – Nils Hansen

7.5 Financial Ownership

7.5.1 BUDGET MANAGEMENT

"The only big difference was that in 2007 we did not do a lot of concepts mock-ups, which in '98 was the case. So, a lot of the costs in '98, additional costs, was because we had to produce, I don't know, but you know, tens of concept cars in a way, you know, in terms of budget – it took quite some budget. Apart from that, you know –[…] You have to make a book, you have to make the interview, invite, you know – […] -- a couple of hundred people, and hotels, and all of that – the rest, logistics are comparable. So, I felt quite happy with the outcome". – Fernand Pereira *(on 2006)*

7.5.2 MARKETING OWNERSHIP

"…One of the first programs that I started looking at is indeed city.people.light, because we had that book that was done in '98 – the first city.people.light book. And although there were quite a few programs that landed in terms of product development for instance, some ideas like the "Metronomis" range, that was… there is an urban lighting range, but there is – […] that was derived from the original study. […] Directly […] So, already some input from the book has been taken into account, and the launch in Paris, in the Grand Palais, there was the exhibition and part of that exhibition there was a few prototypes already of that range – "Metronomis". And then the rest was just, you know, still very concept […] that is the role of the segment marketing…" – Fernand Pereira (on 2006 and its general connection to post program outcome through the 1997 book)

7.5.3 MARKETING OWNERSHIP

"The initiative was taken on a central level – […] By me, my a fellow colleague Keith van Schooten and also Jaap van der Linden as a successor. So we actually took the initiative to set this up or to revive it actually. It is more – it is not new, it is actually making use of something that is there, and then we needed – we saw actually also the need to revive it to a certain extend". – Nils Hansen *(on 2010 start up of* "Create the Livable City" *program)*

7.5.4 MARKETING OWNERSHIP

"Well, research and development – ja – it was more for the marketing really and the product management. It was more a tool for them to see in which direction to go. I don't

think it is product development – they of course – there was input from them, but they say, they – there was not a deep study, let's say, from them to see whether things are feasible. Because a lot of things were out quite fast, that marketing or everybody could, product management could already say: ok, that is not going to be possible…" – Jasmine van der Pol *(on 2007)*

7.5.5 MARKETING OWNERSHIP / INNOVATION LOOP

"In the end I think, I said, as the owner is central marketing – central, it is the regional market, like the segment managers. They are immediately involved in creating roadmaps for R&D and they can immediately also steer accordingly if they sense: ok there is a big gap in what we are doing right now and what I hear in this – […] Ja. And we as essential marketing people are always involved in these meetings. So Rinco is there, the MarCom people is there, the second manager is there, you cannot be closer to the feedback loop already". – Nils Hansen *(on 2014)*

7.6 ***Post-event / post-program applications***

7.6.1 BRAND THEME / INNOVATION LOOP / PR VISIBILITY

"And it could certainly play a role in our inner product documentation, in brochures. Well, I am big fan of using all this stuff in our pragmatic every day operations […] …can we feed back into the innovation-loop? Can we somehow steer our own propositions with city.people.light, but the other simple thing is. But the other simple thing is: can we make the impact of city.people.light bigger outside Philips? I think that is also something to care about […] Can we publicize smarter? Can we make it more accessible? Can we – do we need to edit it, so it becomes easier to digest? Or – I – I don't know, I would need to dive into it with you and we find the answers – but these are very valid questions in also, seeing it really as an investment …". – Rogier van der Heide *(on general approach)*

FUTURES

7.7 **Innovation horizons** *(Continuous innovation, disruptive innovation)*

7.7.1 FORECAST VALIDITY

"So we said, we are gonna reinitiate a study, a follow up, because we promised that to the market and a lot of these customers are very long, they stay 20, 30 years in that market. So, a lot of them still remember the '98 exhibition, and the book and all of that… so we said we gonna make something 10 years later, roughly, that we say: ok, we are back, we will look at the past, what was written there, what has been executed and also then re-update basically the market trends and, you know, are the things still the same or, you know, what has changed 10 years later. So that was the idea. And also to – because that should lead to some business in a way - so also making sure that we do not do this not only to have a nice research and a book. We are not publisher as a company, at the end these needs to be translated into some business". – Fernand Pereira *(on 2007)*

7.7.2 FORECAST VALIDITY

"…five years old, that we are hardly in need in a follow-up. So, these think-tank activities should be in a rhythm, which is more or less, between five or ten years, but not longer. […] Because then you miss - then you miss a lot, then there will be certain gaps we cannot fill anymore, because the city is also a living thing, it is running, so we need to take decisions and we cannot wait in the decision making process for a longer term than a political term, so four years [foreign] bijvoorbeeld [/foreign]. So, 5-10 years, and then you need updated visions on a very high abstract//…" – Rik van Stiphout *(on general approach)*

Horizon 1

7.7.3 DESIGN / ROADMAP / HORIZON 1

"The facts, the facts, I can only talk about facts. The facts where that we of all these ideas that came out of the book, we selected some that had the big – that scored the best in terms of business potential, these kind of things. […] Ja, Philips Lighting. That means R&D, segment marketing, product management. ***[…OMISSIS…]*** *[…] Then there is a project, I mean, it is a standard way of working, so that is for us, as soon as we decide and we have the budgets and that we have programed innovation. So, there is a project team that is formed, so there is one project team, you know, Light on Demand, that was the name, the nickname of that project team. And then, then we ask for different kind of resources and that's where Philips Design greatly contributed to that idea, in term of, you know, the design of the product and this kind of stuff. But in terms of owning the idea or where was it – you know there was nothing – of course it was a new – at least we decided to go for that concept…"* – Fernand Pereira *(on 2006)*

7.7.4 BOOK / FORECAST VALIDITY

"My aim was to build upon this vision, to get it more solid – get the right base to – in order to, in the end, get in a situation, which is much easier - because this is all - at that moment everything should be all in a way evidence based… I own the two of them [books], and if I am looking to the first one, I see things already realized, which in those days were only this comics sketch, and that's a proof of that this kind of research is really helping us, because it is – its ungraspable, but on the other hand it gives enough information to focus on a direction". – Rik van Stiphout

Horizon 2

7.7.5 SKETCHES / HORIZON 2

"Ja, especially in – in evolutionary improvements, like new generations of products. That does not sound like what city.people.light is about, because it used to be more disruptive, but I really think by looking at these sketches of disruptive ideas, I think you also get an understanding of what is beyond our horizon…". – Rogier van der Heide *(on general approach)*

Horizon 3

7.7.6 HORIZON 3 / TECHNOLOGY

*"Ah, we still – actually we really tried to – I remember that we had quite some sessions where we studied the material and the different concepts that came out of the 2006 anyway – we really studied all these concepts and I remember that, it was not that easy task to directly find possibilities to work on product development straight away. There is – technology was still lacking behind. **...[OMISSIS]...** There were some parts that we managed to actually translate into a product solution, but I think the majority was not ready – or for the majority of ideas the technology was definitely not ready".* – Jasmine van der Pol *(on 2007)*

7.7.7 HORIZON 3 / CONCEPT

"…Because there is a lot really high, like flying - high flying concepts, like fireflies in the air or things like that. Like invisible light or light that you could – I mean there is still the laws of physics at the moment, so there were a lot of concepts that were just already kind of really out, because it was not possible for – maybe for – you need to look at another department, maybe Philips Research in Eindhoven, that were maybe the people who need to work on these concepts, because it is really long-term". – Jasmine van der Pol *(on 2007)*

7.7.8 SKETCHES / HORIZON 3

"…And then also, there were new ideas coming into – there were sketches we would have never come up with […] That was the real value"... Fernand Pereira *(on 2007)*

7.8 **Structures** *(Workshops, Matrix)*

7.8.1 MATRIX

"…you always need to keep track and you need to have the right tools for it, so the matrix was the way to do it, and we also use the matrix now for this road-map// […] //to keep on track, and to keep the process up going and also evolving. But the most important thing I learned also in this city.people.light research project, but also in the years after, is that the only useful progress you can manage is if you all act as co-creators and not as have a charge, having in charge – having someone who is in charge or someone who is the most important". – Rik van Stiphout

7.9 Forecasting Rationale *(Falsifiable Forecasting, Genius Forecasting)*

7.9.1 INTEGRATING / GENIUS FORECASTING

"…finally I think the – this – the real scenario is the urban futures that is your – […] That is your property and it is something that is based on a lot of research I guess, and all the interviews that were made before and it's – that was a long-term study and I think it is not something that was created just on demand". – Jasmine van der Pol (on 2007)

7.9.2 FALSIFIABLE FORECASTING

"The thing is and that is really the unique part in it, that is -let's say- the mechanism or the matrix of the underlying structure remains, but it can always be reused to be revived, enhanced and actually – ja, I would not call it improved, but – ((re-invented)) with new insights. Time is changing, attitude of people towards lighting is changing, the recognition of lighting as such in the urban environment is also changing, undergoing changes, and also technical/technological possibilities are enhancing. So, these visions that have been created ten years ago are still valid to a very big extent but some of them have come to life already…". – Nils Hansen *(on the connections across 1996, 2007 and 2014)*

7.10 Forecasting Techniques *(Generating, Integrating)*

7.10.1 GENERATING

"And the intent was to, lets say -- a like in a typical research project is to start with this and end up with something but without knowing what it actually would be the outcome. So, it was very experimental". – Stefano Marzano *(on the approach in general)*

7.10.2 INTEGRATING

"…you need to reach a certain quantity for it to - to be - for you to be able to analyse it, I'd think - or for us to be able to see any sort of - interconnecting themes or thought processes [which we have, I mean, certain themes are sort of risen from this… So, the quantity over all, you could say that you could keep a program like this going forever, because the content will keep changing quite organically, quite naturally, as trends and technologies and other things develop. But to sort of draw a line after five/ six events, recall that in format of the research book, seems quite - quite logical…. if we keep it in European context, maybe we are somehow a little bit closer to a saturation point - although I would leave that – I would do another three or four… every single time, where we get, maybe one new take on thing. I mean we already seen quite a lot of repetition and similar sort of topics and themes being repeated - so, maybe, but, having said that the, you know - geographically speaking - we have kind of discounted at the moment -- you know - quite big areas, like - practically the entire South of Europe for example. So if we would do a more organized thing in Spain or France, something, that could be quite interesting… And I think that we will get more of that. I think that would remain. We would - like in Glasgow, you could say that there was like one - one new thing that came out of there - one really interesting aspect that came out of that. So - so, we maybe get these sort of hits. When do we reach the point where we, you know, no longer get that one - can't say - but maybe in a three or four max and then we probably saturate the Europe and then would have to get out of - out of this area and go somewhere else". – Tapio Rosenius *(on 2011 – 2013)*

7.10.3 INTEGRATING

"To transfer this theoretical background together with the practical knowledge and technical education. And all those three things combined together create the basis to start with – and start to build relations with architects". – DS *(on Architects of Light)*

7.11 **Technology** *(High Tech, High Design)*

7.11.1 TECHNOLOGY

"I think that it depends on the people you invite. Some, if you, and I think it's the case, when you have really creative people, they – that will not block them, it might frustrate them somehow, that indeed, that the tools and the existing technologies and the tools that we provide them to execute their vision, you know, their, probably, you know, can't fulfil what they wish in a way. So, but on the other hand, in a lot of cases it is also, and especially for professionals, there are not so much that do not have a lot of knowledge of light, and lighting. So at least to playing with light and light instrument in a way also, for them, enriches their, you know, it's – it brings them a new dimension in a way, because you play with the light and then you experience it in a different way. So that could maybe lead you into other things, you know, so it is part of the creative process, to come with something probably better than if you would not have had the tools. [...] Maybe some will just, you know, be too frustrated that indeed this technology does not allow them to make their dream. But at least – and I don't think that was intentional of the program, but I don't think the intention was to finish the product, but just to illustrate indeed what kind, and then of course you need to work that out and have new technology, to really make it really meaningful in a way". – Fernand Pereira *(on general approach)*

PRODUCT

7.12 Book *(Editorial Design, Distribution)*

7.12.1 BOOK DESIGN / SKETCHES

"…we archived it, yes. There are a couple of DVDs or CD's probably at that time still. With all the digital files. […] Jaap. Jaap van der Linden has a copy, I have still a copy archive. So, ja, we do have it. […] At Philips Lighting […] Now, if you would ask me by memory exactly what is exactly on that archive, I can't tell you right now from the top of mind, but, yes, we do have the digitalized information. […] Because I actually don't believe anybody knows that is almost there, apart from, you know, what I… I handed over that kind of treasure, you know, from the past, the archive disc to Jaap who also give that legacy to his successor, etc, etc. […] No, because… at the end it is like, we communicate to the outside world, I think, most of it. It is not like we kept on purpose, we excluded the 30 best concepts. No, we kept all the good ones, and probably the ones that did not land in the book where almost the same kind of concept as well and we just kept it, but it is not like – I think that was a genuine approach and we really told anything we learned, like it or not, that was really the approach. Probably what not has been published is because it was already said somewhere else and this sort of things. There is no knowledge – let's put it like this, there is no kind of extra knowledge or really need to get to these original files just to find more information, otherwise we would not have done a good job". – Fernand Pereira *(on 2007)*

7.12.2 BOOK / DISTRIBUTION

"…the idea was not to make it like a – […] a brochure, exactly. It was – It is a small market in a way, because that was like, you know, probably it was like 10,000 books or, I don't know, I am not sure, but it is not like it is hundreds of thousands, so but it is not 100 neither. You know, it was a decent number of books to give to some key stakeholders,

you know. So, that was not aimed to installers, wholesalers, you know. It was not like a book you give for Christmas, just because you need to give something to a client. It was really - we kept it also like: If you give it to a client it has value, you know. It – and you only give it to someone who will somehow read it, you know. And we kept it like this. That's why there is scarcity – and we managed that because – […] Consciously, yes. Definitely". – Fernand Pereira *(on 2007)*

7.12.3 BOOK / DISTRIBUTION

"It was, ja, I don't know if that was why – I think they wanted to keep it a bit exclusive, like a "hard to get" thing. Because also the book it was a really – there were not so many of them, and it was a bit exclusive – positioned as an exclusive thing and so there was of course a whole buzz around it and people saw the book, and many people know it, but there is not – ja – it is not just possible to find it like that – […] To get that exclusiveness and that the picture of: it is really high end. Ja, I think that was a little bit the idea. And I think that is also a little different to what happened in 2011 actually. I thought it was far more accessible and – ja – it was more – it was offered like a way of thinking for people and tools that you could use and I think – ja – I don't – I did not feel it that way, as in 2006 where it was more like – ok – it was really high end for a little – I mean, you really felt it I mean, it was the set-up, it was more privileged, let's say […] …you felt certain frustration, because you need to – they were asked, a lot of colleagues were actually asked of course to use the pictures, to use the stories, to use it for selling, for their stories, for the product launches, for the ideas – and – but they – I don't feel that there was – ja, maybe some frustration, because it was not easy to get the images, for example. So it was for them, it was more a hassle to get it, although they were very happy once they got it because it was a great tool, also for them, to help selling their ideas and products and solutions. But you felt actually that it was – it was – there was a big gap, because there was a lot of real knowledge actually generated during these workshops, whether the sketches and – were just used like this and like that, which had nothing to do with the initial idea. [laughing] *Because there was no knowledge sharing between finally, so – and all the real in-depth information and the content was not finally really conveyed to the people – so, transmitted to the other Philips people. Where – I was thinking, that was a little bit different in the last workshop session, there was, I mean – not everybody read it at Philips, I am sure, but at least they could – they could listen to the conversations we had during the workshops, not everybody but still there were some more Philips people in".* – Jasmine van der Pol *(on 2007)*

7.13 **Storylines** *(Narrative Practices, Para-scientific Structures)*

7.13.1 STORYLINE

"I think city.people.light is – it's really about creating a better city for people and it's – that sounds like a very big statement, and very nondescript, but ultimately that what it is and, I don't know, I mean, it could have been 'city.people.philips', I mean, why is it limited to light? That is also a bit odd of course. You could argue, we are such a multi-faceted company, why don't we combine different propositions and talk about it and learn from the reactions in order to just be more powerful, because I think as I said before the recording started, there is tremendous opportunity in health care and – and, you know – there is equally great opportunities in light, but together it is really potent I think". – Rogier van der Heide *(on the general approach)*

7.13.2 STORYLINE / EDUCATIONAL

"…and how to enhance architects to join and to come and to educate. Because the light is not only about putting the green light here and blue light there and red light in the middle, it's also about creating a story – a storyline, a concept, an idea, and knowing why they are doing this, right? And this is what we are missing here. That's why we liked, **~~[OMISSIS]~~** *the concept of "Create the Liveable City" that much".* – Dorota Slawinska (*on 2014 versus Architects of Light)*

7.14 Concepts *(Physical objects, social spaces)*

7.14.1 MOCK UPS / PHYSICAL OBJECTS

"You can really see it from the end results. So, we are going through this sort of a lighting technology trend moment now, where a certain kind of digitalized technologies, like colour mixing and LED based stuff is now coming through very strongly – and all that kind of equipment was available - including the basic lighting controllers and stuff like that. They were used extensively and they were in very many cases really driving the visual end-result to a point that we're seeing in an enormous amount of saturated colour and stuff like that - they - that were not necessary very well argued - why is that kind of saturated colour there - and it is primary there because you can do it, so the technology allows for that to happen. So the technology took a very central role". – Tapio Rosenius *(on 2014)*

7.14.2 MOCK UPS

"So, it's available technology. It is absolutely the technology of this moment. I mean, not necessarily like cutting edge, because this is a big manufacturer - putting up product lines that are generic enough to sell well enough. So - but, you know, no absolutely, very current, modern technology". – Tapio Rosenius *(on 2014)*

7.15 **Symbols** *(Creative Leadership, Commercial Focus)*

7.15.1 UNIQUENESS / CREATIVE LEADERSHIP

"…anybody can copy anything. I mean there is no – but it is like, you know – it is like when you go to a city, you know, and you can even, you go to, you could copy-paste a castle, you know, in the US or in China and make a city or rebuild exactly the same kind of city or monument, but that is not the original, I mean it is just, you know. And, yes – you can mimic the approach but the legacy that we have, the long history now, in having… in being the first with structuring that approach, I mean that higher level of thinking and continuing… Other companies of course follow that path in saying: Ja, that is a way to be successful as well in the business. And yes, everybody can copy and do the same kind of approach or workshop. You know, the book was public, you know. You can even do all those concepts – anybody can say, this is a great idea, thanks Philips and then we gonna make it, and actually some did even. You know, so, they selected concept we did not invest in and they invested in these concepts. And actually I told them, they told me…. […] Competitors told me. Ja, Thanks for the book. Because we really now have done something. That's – but that is leadership, I mean, ja. Then you are copied, fine, but the original and the history, and that is why it is used now like kind

of a sub-brand, although I don't like that word, but it is like, you know, it has some value, because of that history". – Fernand Pereira *(on 2007)*

PROCESS

7.16 **Relationship Management** *(Community versus CRM)*

7.16.1 CRM / BOOK

"The books, the content - the contest, the reports that we were receiving. Because we have been receiving the books and the results of the contest. We also – […] Yes, the city.people.light award contest. Yes, we also had a couple of our project, Polish projects, I mean, sent for this contest. And I think one of them even won something. I don't know if it was the first price, but it was mentioned in the book. Anyway, we know that our architects are dealing with everything, you know, with outdoor light, indoor lighting – they are not very specified, that is why we would like – wanted them to get, ***~~[OMISSIS]~~****, the knowledge they would need to be inspired with light, to see what light can do for them, and how they can use* ***~~[OMISSIS]~~*** *it, and see that Philips can be a consulting partner for them in the project and at the beginning of the project concept".* – Dorota Slawinska *(on Architects of Light)*

7.17 **Openness** *(Co-creation, Contribution - for professional stakeholders)*

7.17.1 CO-CREATION

"I think the next city.people.light, the 2006 one, that was more through co-creation. […] Because the sketches were actually drawn by people in the workshops". – Laura Taylor (on 2007)

7.17.2 CO-CREATION

"I don't think that in the end you will go back to the architect that has created this and then you will ask for his advice: is that the right thing that we do? Then – that would be a step too far, but I think in the end it is the compilation of all these inputs that we get. This is really the value contribution to this co-creation – all that together forms a picture. Otherwise it is just one man's opinion or one man's idea, which is great and sometimes also very valid, but generally speaking I think the compilation of all the - all the ideas generated in these workshops are the most valuable contribution in this creation of – creative process for further solutions – future solutions, sorry". Nils Hansen *(on 2014, negative feedback)*

7.17.3 SKETCHES / CONTRIBUTION

"…So, I think the concepts, although you might have a concept where someone who came with the idea, but it was not like, they were doing the sketches by themselves alone, it was always with someone. Of course someone has the trigger, but then someone else adds to it, and then – that's how it worked. […] And that – but that's exactly the – what we wanted. […]" (Fernand Pereira on 2007)

7.18 Participation *(Participatory, Normative – for non professional stakeholders)*

7.18.1 PARTICIPATION

"… In a lot of places where the economy is growing and booming, of course there is a lot of work on places, on private places, so there are a lot of fancy castles and super restaurants and places that are high – but we discussed – I mean lighting – when you work on urban environment, it should be – lighting should be for everybody finally. It is not something that should create a separation between people. //" – Jasmine van der Pol

7.18.2 COMMUNITY / DESIGNER

"…from a professional community point of view, the entire built environment (professions)- I mean, starting from architect, landscape architects, interior designers going into engineering, lighting --- lighting science, and then maybe, maybe jumping from there towards arts - people who contribute to public arts. And then of course there is then this academic dimension as well. So this is pretty - this to me is relevant to about as wide - wide group as it can be in professional sense. In terms of society, well hard to say, this is so specific…" – Tapio Rosenius

7.19 Networks *(programmer, switcher)*

7.19.1 DESIGN / NETWORKS / FORECAST VALIDITY

"It would be worthwhile asking them actually what it is that they use every day. I mean, if you look at the professional association of lighting design, for example, the ILD in// […] // and PLDA – then if you ask an ILD member in North America, then he says: I get a lot of value delivered for my membership. If you ask a member in Europe, they say: I don't get that much value. PLDA now seems not to exist anymore, there's some trouble in the leadership there, and I think the ILD will perhaps take over or heavily collaborate with them. Hopefully they can do something that is relevant in the European context – for practitioners, you know – and because, that is ultimately the reason to keep on coming back to it. And I think that is the key – the key is also the understanding, the appreciation of the - of the concept of investing in the future, I mean, why do we do this city.people.light things? Why do we fund it? Ultimately to be able to empower cities with great lighting. Right? When does that happen? Well, if you look at the pace of urban planning departments that can easily happen 10 years from now, right? What do we do in between? For this whole decade, are we in touch? Do we build the relationship? Do we get something out of it? Is that network being formed and solidified? Does it start to virtualize each other?" – Rogier van der Heide *(on the networking context where city.people.light books are circulated)*

7.19.2 BARTER

"… And I think that for Philips it was something like everybody it seems people...[…]… I think that was giving them a very, very nice tool". – Jasmine van der Pol

APPENDIX A: CHAPTER 8
CODING: PREFIGURED CODING / OPEN CODING
CREATION PROCESS OF CITY.PEOPLE.LIGHT: BOOK

BASICS

8.1 Key outcome: what city.people.light generated

8.1.1 THOUGHT LEADERSHIP / FUNCTIONAL KNOWLEDGE

"So that means that one of the conditions that I said to the team, so involving Research & Development guys and also Product Management, they have to embark in that project together with us, and not just like a pure marketing – or Marketing Communications story, so the objective is much more than just a thought leadership and say: yes, look, intellectually how Philips can be somehow… also your intellectual partner in some kind of discussions about master planning, future of cities and this kind of stuff, but more as well to say: Ok, what is the promise we can make to the market? Saying: Yes, based on these trends we will actually execute and that should influence part of our product portfolio". – Fernand Pereira *(on 2006)*

Functional Knowledge

8.1.2 WORKSHOP / ROADMAP CONVERSION / FREESTREET

"We wanted three. […] We got… I think two really, that really landed in solutions – and I think that a third one was derived in a way from the approach, but not a direct, almost translation one-to-one of this very specific idea. […] …for instance, we had an idea that… and a lot of concepts and sketches from clients in these workshops were about light without poles, ja, without a pole". – Fernand Pereira *(on 2007)*

8.1.3 WORKSHOP / ROADMAP CONVERSION

"Ja, it is definitely, let's say, for the marketing people, for myself and my colleagues it is the most valuable input that we can get, because that helps us to refine propositions and to kind of translate these atmospheres into: we should develop [mh mh mh]. Which then needs to be translated in the product management, into: ok let's… we need to luminaire with this and this and this and this specifications, so we need to do this and this and that. And so it is the initial – it is the seed -so to speak- of future solutions. This is actually created in those workshops". – Nils Hansen *(on 2011 – 2013)*

8.1.4 WORKSHOP / INSIGHTS / BEYOND FUNCTIONAL

"It will to a very big extent, but not probably on a – I know the topic of design – in the end what we generate in these workshops are customer insights if you may call it like that, that has nothing to do with, that product needs to look like that, or that, or that, or that. […] But that product needs to fulfill a certain function, it needs to solve a certain topic". – Nils Hansen *(on 2011 - 2013)*

8.1.5 WORKSHOP / ROADMAP / DESIGN

"The thing is that – it could be the first step for this but it will not take this place. It is the first step for investigating further… are we really going with Philips Design, with Philips Research in investigating further and detailing down on certain areas: what could we do here and there. But as such the outcome is not strong enough, and also not – no, not strong enough is wrong, but the outcome is – […] Ja it needs to be consolidated, it needs to be re – or fine-tuned, and it needs to be put on a broader basis than a workshop with let's say 40 people". – Nils Hansen *(on 2011 – 2013)*

8.1.6 ROADMAP / FREESTREET / DECLUTTERING

"In FreeStreet it was: de-cluttered streets - a lot of elements, a lot of horizontal – eh, vertical elements on the streets, disturbing the view actually, making the pavement unusuable, all these kind of visions, or these kind of situations were transferred in visions how lighting should help to de-clutter those streets. In the end one possible solution of this problem is FreeStreet. Another example that I could give is LumiMotion as such. LumiMotion is something that is also – it is fully ((independent)) of every luminaire, but it solves together with the luminaire a certain problem, and the problem is that, ja, in the end light should only be there when it is needed, and in the amount it is needed, and at the time it is needed. But how can you do that? And some of the visions that were generated are very abstract that reach from light that actually follows you or kind of avatar thingy light that always accompanies you through the city. But this is then actually some kind of derivate from those visions and became to – came to life – in a sort of limited environment, let's say for pedestrians, but still it is based on the idea of: would not it be great if you would have interactive lighting that is acting to its environment, in this sense to the user". – Nils Hansen *(on 2007 functional follow up)*

8.1.7 ROADMAP / INSIGHTS / FREESTREET

"Decluttering has been a strong topic, you mentioned it// […] //I think it is one of the positive examples. I think in urbanism we have done a great job creating a decluttering proposition, but also in office lighting for example – […] So, you will see next spring at the big tradeshows that we will come with ceilings that are luminous, that are edge to edge full bleed, no seems, no joints – you know, something really super minimalist. And that is decluttering the space, and that was indicated in city – in work.people.light, and also in city.people.light. I don't think it is unique to these sessions, right? There are many other indicators, that decluttering is a trend?" – Rogier van der Heide

8.1.8 DESIGN / ROADMAP

"Well, now I am trying to remember what I saw. I know what has impressed me about the Philips' products, you know in the last few years, and that is really FreeStreet. But, I don't know if that came out of city.people.light, but I just actually - we are having the first application in Norway now, that we designed, and it was turned on a few weeks ago. And I really appreciate the fact that Philips is trying to – to look into the future and think of the products before we – before we know we need them. But I don't remember what products now – I mean it is two years ago – my brain is – what products they showed us other than that". – Kristin Bredal *(on 2007 functional follow up)*

Monitoring Knowledge

8.1.9 WORKSHOP / MONITORING

"…we are not necessarily involved, but we are participating very closely in the workshops, we are observing, we are circling around, going from table to table - you listen, you hear, you feel also what the people are driven by – you see a lot of, the environment needs to be more personalized or more human-centric and more organic, and you feel, you get certain key-words out of the discussions, and these keywords you can use easily as a monitoring check …" – Nils Hansen *(on 2011 - 2013)*

8.1.10 MATRIX / WORKSHOP / INNOVATION LOOP / MONITORING

"…it helps us internally to create a fundamental database in a way, on potential streams of development, let's put it that way. You could cluster the outcomes, you could use actually the city.people.light matrix also internally to focus a bit more on: where do we think is a valid point to access, in a way. The workshop-scenario as such is for sure, or every workshop is kind of a new "sanity check": are we going in the right direction? […] For the company, exactly. Because we get an immediate feedback in these workshops. We get an immediate feedback also if a discipline like lighting design or urban planning is undergoing major changes. You feel - you hear it, you feel it, you get questions leading in that direction […] this is the monitoring part. It is not really a monitoring process in a way but it is a regular sanity check that helps you to refine your propositions […] And that is also the reason why this activity is embedded in the marketing for the region, because this is the closest you can get from a central perspective to the customer. If you would do that as a central activities somewhere globally managed within Philips// […] Or you use it in an informal, or impersonal platform somewhere on the internet as knowledge sharing platform or whatsoever, you would loose track, because there is, let's say, the possibility to filter these kind of statements is really difficult. Even with newest big data and everything, but it is really difficult to sense out of these kind of written comments, for example written on an Internet platform, to sense what is driving the people". – Nils Hansen *(on 2007 and 2011 - 2013)*

8.1.11 MONITORING / GENIUS FORECASTING

"…And I think – and that will – ja – it will influence the people working on their projects later – but I don't think that they will just take actually the research and say: ok, I have here a case, let's see what research says about it. I don't think it is done that way. It is not so systematically". – Jasmine van der Pol

Reflexive Knowledge

8.1.12 REFLEXIVE / SALES

"Those guys are the ones that recognise the, let's say, the lighting that is necessary not the product at that point – they can help in – if you would leave that to the sale guys, they would go like: oh, I need to sell now this and that and then they would do it. LIAS would help us to keep it to a non-product related, ja, solution. You would need this and this lighting effect, is what they want I would say. They would not say you would need this and this product, they would say you need to have this and this lighting effect and this thing here could help you with that or this thing here could help you with that and

that's about it. […] So, it is a bit like a theatre play where there is the doctor of the church which would be me, bringing the knowledge from academic value. Then there is the sort of military commander, which is Tapio Rosenius, and he streams like the activities. And then there are the sort of poetic advisors who are the LIAS people. And there are the concrete pragmatic supporters who are the sales people. […] Sales has actually - sales is always asked in the rules of the game so to speak, Sales is always asked: you are part of the group, but your main job is now - listen. So they should not influence the result, they should not talk about selling or any type of real projects or anything like that. They should be part of the group, help where they can help and listen - listen, listen, listen. Because in the end, the most valuable thing that they can get out of is: the knowing of the group, knowing who is in there and knowing what their drivers are, and then there is something that you can later use as a sales guy, but that's their job – their job is silent listeners, more or less and being a helpful hand". – Nils Hansen *(on 2011 - 2013)*

8.2 Key performance indicators: how the value of city.people.light outcome was measured

8.2.1 MULTIPURPOSE / BRAND THEME

"Well, if you would be high-minded about it, you would say: no, you know, it's lost the original intent. But if you would look practically at the goal, which was always this converging to a dialog with customers and stakeholders, then I would say it very much achieved it. It became embedded and – it's become a kind of well-known name by all these people, so then it kind of achieved what it set out to do" – Laura Taylor (on city.people.light in general)

8.2.2 DESIGN / THOUGHT LEADERSHIP

"From my perspective, it is essentially the promotion of the lighting design profession, the value lighting design can bring to […] particularly -- sort of, we are talking usually about a 'added value'. […] So, beyond the technical, beyond the functional, and diving into the emotional, promotional elements and broad sort of human experience within the environment - So, I mean, those are the things that -- well, measuring them is hopeless - but, I can see them being possibly the most important elements that trickle down the line as a result of this - this exercise". – Tapio Rosenius *(on 2011 – 2013)*

8.2.3 MULTIPURPOSE / MOCK UPS

"Because we wanted to have something that generates an immediate – it needs to generate– we wanted something to generate an immediate result for our audience, but also for ourselves. We wanted to create a platform where our sales people can connect with something that they feel comfortable with to our customers, which would not be city.people.light research, because that is not our sales guys. It is more like: ok we do a mock-up, we work on this - but without selling - but they need to have a field of confidence…". – Nils Hansen *(on 2011 – 2013)*

8.2.4 NPS / KPI / NETWORKS

"For us, the program of 'Create the Liveable Cities' was actually meant to be a relationship building tool. So, we set KPI's according to a number of invitees, we set

KPI's according to, ja, let's say – I would not call it "lead generation", but relationship performance, and thirdly we measured every event with an NPS, Net Promoter Score to make sure we did the right things and that actually the people liked what we did. And that were actually the Key Performance Indicators that we used for measuring these workshops. And at the end of the year, or at the end of every year we connected with the sales organisations that hosted these kind of events to also evaluate on: did it leverage on a business potential in your markets as well? And the outcome also there was very positive". – Nils Hansen *(on 2011 – 2013)*

8.2.5 NPS / CRM / WORKSHOP

"These days marketing activities that valuable like these workshop-scenarios for example are always questioned in terms of what kind of sales does it generate. Which is really hard to tackle because in the end there are lot of effects and lot of determinants to create success on that, and the workshop can only be a part of it. The feedback so far from both, sales organisations, accountants managers but also local marketing people, and also centrally for sure - and together with the NPS scores and objectives measured during these events show that the perception of Philips defiantly increases in this audience, and there is much more openness also to interact and consult us in early stages of projects, in the different markets. A lot of projects have been generated out of the relationships built, especially in Central/Eastern Europe, that is a huge success. And from my point of view, ideally also local markets need to take a similar initiative like Poland did in kind of transferring this into a local activity as well. So, for me the customer relationship value is really high. We have set 200 well known, or 200 architects/urban planners on these events and the word spreads. So it is becoming increasingly – or it is becoming easier, hopefully in the future, to also generate this attention for these workshops. If we can improve, let's say, the exploitation of the – even though I hate that word in that context – but if we can improve, let's say, leveraging on these relationships in sales a bit more – ja, that the future will show, but a this moment I said, it should be something that generates a collaborative environment, instead of immediate sales, but that will lead to certain projects later on […]". – Nils Hansen *(on 2011 – 2013)*

8.2.6 NPS

"At that moment we did not work actually with that way of evaluating the – the Net Promoter Score. That was something that was really of the last couple of years. And I think – no, I did not have it for myself, I am happy also, not only to be judged with such a score, I think it is a very – it does not give – it is nice to compare different things and to evaluate over such a section, but I don't think it gives deep insights. And I think actually it is not possible to evaluate people with such a score. You could evaluate products or service or I don't know, but a person. I don't think you can –" – Jasmine van der Pol *(on 2006)*

8.3 Perceived Points of uniqueness of city.people.light

8.3.1 MULTIDISCIPLINARY

"…there was a platform created with city.people.light –at several –…. It was – ja – I think urban research…". – Jasmine van der Pol

8.3.2 DESIGN / MULTIPURPOSE

"… what I was saying is - besides the questions that you have, like, why the method works is really because the outcome is pragmatic and its about, you know, it's a certain playfulness, it's about mocking it up – and it enables all kind of stakeholders to connect – The technician can say something about it, a mayor can say something about it, you know – when he sees it, he can engage, and a designer can express, and even somebody who does the advertising or the city marketing can connect with it - and that is very different from an altercate drawing on the table …" – Rogier van der Heide *(on the approach in general)*

8.3.3 WORKSHOP / BARTER / SWITCHER

"Probably a bit too strong, but however, some creative specifiers as we call them, so lighting designers, or some architects saw Philips with different eyes. So they thought, some of them, and they were invited, and I talked to some of them in Rotterdam I remember very well, that they could not believe that Philips was doing this kind of stuff. They were thinking Philips is a mainstream supplier, you know, bulk, volume, highways, you know solid quality, functional lighting, and now they saw concepts, they saw things that are really at the higher intellectual level, more abstract as well, and we are able to talk, you know, also that kind of language and design language as well, that was for some like an eye-opener – they say: there is this facet of Philips that was not very clear. […] It repositioned for some indeed, because they were… we tried to invite, I don't remember now exactly the figures, but I remember when we selected the number of invitees, that there were existing customers but also new prospects in a way, guys that we would have never dared to invite, because they are not interested at all in looking at a catalogue or a product discussion at all, because they are more, you know, higher level kind of creatives and the – but they were invited at that workshop because, you know, the – […] -- the content, the discussions, and the, you know – was – the program was attractive to them and adding value, because we never talked about product solutions actually during that workshop. And that opened, you know, that gave us access to some of their practices, and then to discuss with their teams in real projects and then of course we need to talk about lighting solutions for some projects. But, for so for some of them, that was a bit of a door opener, because they said: Please talk to Philips, because they have some great stuff. And that link in some cases has been created thanks to these workshops and the forum and the whole -- //" – Fernand Pereira *(on 2006)*

What appears to emerge is therefore the collective image of a knowledge process that apparently articulates itself in a sort of its own league, for example by representing high didactic value for professional stakeholders, and secondarily for studentsIn synthesis, the total stretch of all components of city.people.light process and all of its resulting products might offer a scope of distinctiveness that, some external respondents infer, might not be understood by Philips themselves:

8.3.4 EDUCATIONAL / UNIQUENESS

"I think one simple thing is maybe worth pointing out, that this is - this is actually very unique in the lighting world. So what makes it unique is - just the scale of it, it has a very Olympic scale, it is very professionally done. And then of course this sort of academic, educational components and the research related to it. So, I am not sure if even Philips

even understands how unique this really is. Because this was a little bit - a lot more than just some kind of fun trip as a designer". – Tapio Rosenius (on 2011 – 2013)

Of course, the question then emerges, what / who is the Philips referred to in the last quote? As a brand, Philips might be perceived in a monadic or monolithic way by analysts, markets and operators within what Castells defined as "the *automaton*", however, as a collective "persona", Philips is as varied as the personality of its own senior leaders, middle managers and stakeholders and staff. In particular, it was already recorded how city.people.light is a program involving Philips Design and Philips Lighting. This dichotomy will be the object of the next "icebreaker", from the financial investment "hard perspective".

8.3.5 BRAND THEME

"…city.people.light is widely recognised within Philips anyhow…". – Nils Hansen *(on the approach in general)*

8.3.6 BRAND THEME / CONTINUITY IN TIME

"I have to say, and that I can now say really critically, we are really not good in managing these kinds of assets. […] It has to do with, let's say, the simple fact that we are a really huge company with lot of different locations, a lot of different people being involved in this kind of projects. It has also to do with that we sometimes very late acknowledge the value that this kind of things have. On the other hand, what I now would say is that with the fact that city.people.light is now almost 20 years old, it really shows that this is a continuous thing within Philips. And there are not many activities within Philips that have a lifespan of 20 years, definitely. I would say that is probably the only one. Apart from the fact that we produce luminaires. So, based on that, I hope, and based on the fact that the market in this way at the moment leading this activity still. By this I hope that we can secure this knowledge and this content on a longer term". – Nils Hansen

8.3.7 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD

"It is a difficult question in a way, because it depends also what we refer to as a kind of sub-brand, there is no sub-brand, there is only Philips as a brand. And that's clear. But that program, city.people.light, these kind of three words, ja, are like – that came always like a mantra, you know, for the last couple of years, you know, and decades, actually, so and that has value. That is recognized. That is known by the market, you know, that this is the Philips urban lighting kind of approach, you know. So, anything that will contribute to that vision about that future of urban lighting for cities involving cities, city authorities have that branding: "city, people and light" – city is in the centre. If we would have a program that would have nothing to do with cities in a way, you know, probably then it would hardly fit in that in that city, people, and light, you know. […]". – Fernand Pereira

8.3.8 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD

"[…] First, it is not run by LUCI, it is run by Philips in partnership with LUCI, so it is a Philips award. […] It is a – of course that is a – we created that city.people.light award together with LUCI, but it has always been funded 100% by Philips. […] And, but it is developed together with LUCI for LUCI members and other cities. So, the ownership of

that award is with Philips. […]I think there were only the light sources from Philips, probably – anyway if there where from Philips or another brand, but it's // […] //It is totally disconnected. […] Totally disconnected from manufacturer's considerations […] Because nobody from Philips is part of the jury members. […] So, we are just there as observers and to take notes, but basically the jury is fully completely in balance. There are no manufacturers there and none of the questions, and none of the jury discussions are based on any, you know, what kind of lighting products where used. But it is more about the approach, the, you know… But it is not like a GE Edison award for instance. Clearly they say: Ok, who is the best project done with the lamps from GE, for instance. That is a clearly – that is a kind of award and not – I don't say its not good, it is a different thing. […] Yes, exactly. What I am trying to say and maybe I don't make myself very clear is that, it's that, we created this together, it is a real partnership. But if tomorrow we would not have any budget for to do it, which is not the case, but if we would not do it, then it stops. It is not like LUCI owns it in a way, that is all what I wanted to say. […] It is a Philips award, I mean that is clear. Together with them – because that's the idea to connect and that's the definition of partnership, is that it is a win for them, it is a win for us. […] At least it is connected… now, it is not a – the strongest pillar of the almost, the approach, you know, but it is part of it. But it is not like the major part of it. But it is connected, because it is about urban futures, it is about encouraging cities to think about master planning, about, you know – […] -- about sustainability, all these things that are important, highly, you know, that have been ranked pretty high in the city.people.light research". – Fernand Pereira

8.3.9 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD

"I would call it a brand itself. It is recognizable, it shows a certain, you know, strategic (or: structure) integrated concept, and I think it can be recognized as a sort of small brand in itself". – Dorota Slawinska *(on city.people.light extension to Awards)*

8.4 Educational unique value of city.people.light *(academic, applied)*

8.4.1 EDUCATIONAL / MULTIPURPOSE / DESIGN

"…but at the same time, I mean, it was of course contributing to the program and at the same time I think it always is also a learning moment for us – for Philips. So that knowledge was also brought back to our team and to product management and to everybody that needs to develop new solutions in the future. So, it was not only building the program for the participants. I think, that is maybe also the key of the success of city.people.light. It is more – it is a platform, it is a knowledge share – I think it was not only creating an event, it is more: spreading the news and spreading the… – and starting up the discussions […] And I think it needed to be done with the people, eventually it is the leading people that are leading in lighting design and architecture that needed to be done in the countries but it is also needs to be within Philips, because in Philips – we are – we were, I mean, now I am not in there anymore, but we were always thinking of solutions. And I think it is so good actually for everybody, to know about this, the contacts and know about what is discussed and the visions that there are and how also the leading people within architecture and in city development are thinking about this. I think we are also supposed to spread out within Philips". – Jasmine van der Pol *(on 2006)*

8.4.2 EDUCATIONAL / WORKSHOP

"Of course, I mean in the first one it was more – I think in the 'Create the Liveable City' events it was far more accessible for all colleagues, so everybody from the countries could actually just listen and learn and participate. So it was more accessible for the Philips people too – and in the first workshops there were hardly any Philips people…" – Jasmine van der Pol *(on 2011 – 2013)*

8.4.3 MATRIX

"I would not say: "Changed the way I work". I would say: "Broaden the way I work". Because for me it was like a way of thinking that I sort of have from the theatre, and it's broaden – it made – it made my work more analytic and I think in that sense – ja, it was very helpful in that sense, and then when you do a good analytic work and then it always impacts the solutions that are suggested". – Kristin Bredal *(on 2011 – 2013)*

8.4.4 COMMUNITY / DESIGNER

"… Because light is very hard to describe and it is certainly – if there are five people in the room and they talk about lighting, it is five different ideas about it in their head, visual ideas. But if you actually look at something and discuss it, it is much, much easier to get a good discussion and actually learn something from it". – Kristin Bredal *(2011 – 2013)*

8.4.5 WORKSHOP / TECHNOLOGY / EDUCATIONAL

"Absolutely and I think that was extremely meaningful part of this - so the learning of new technology is a very meaningful part of this - this workshop and this exercise and it is an opportunity to really - well, truly play with the light and move the feelings around and focus them and play with the colours and do the colour mixing and do those things - cause those things cannot be understood or learnt in any other way - it is really sort of the exercise" – Tapio Rosenius *(on 2011 – 2013)*

8.4.6 WORKSHOP / MULTIPURPOSE / WROCLAW

"I think the format is really flexible and it can be adapted almost everywhere. I truly agree that each country is specific and has its own requirements and its own approach to get to the market but the concept itself is really unique and it is really flexible. So, I adopted it really, quite easy to be honest, because I did not change much, I only changed a bit because our architects are a bit different than, you know, this target group and creatives in the Western countries. That's why we – they don't know anything about light, they are not educated, that is why we wanted to pay more attention on the education and technical aspects than it was not done in the original format, right? But on the other hand we missed that part of the original format that is theoretical, and that, I mean, has – the basic background for the whole concept of the workshops, right? Not to lose the point. That's why altogether, you know, combined was a great success here and I think it was also quite a success in Prague. As it was also adapted a bit there to the Czech requirements and I think it can be easily adapted everywhere. I don't know if each country has such a wide network of this target group of architects and specifiers, but they can adapted easily even towards small groups, you know and have – and propose something that is unique for them. So, I think it is applicable definitely". –Dorota Slawinska *(on 2013 "Architects of Light" – Wroclaw spin off into* "Create the Livable City"*)*

Besides the somehow unresolved historical position on academic knowledge sharing as highlighted above, this Prefigured Code was set to verify specific value generation in the educational field by relating it directly to the opinions or the memories of interviewees, hence bringing the probing at a very personal level of their professional practices, where "education" takes a less formal format, considering the need to involve professional stakeholders, as demonstrated from this quote referred to 2011 - 2013:

8.4.7 EDUCATIONAL / WORKSHOP / MATRIX

"And I think all the, you know, I think, for me it should have been, you know, it should have been even more sort of lectures about the academic work, but that - of course also the practical workshop is good too – but, you know, that is never reality, so. So, it's just ideas, but to discuss and talk about the lighting in this manner, and look at the socio-dynamic drivers that you have created for this program was very, very interesting. And I used it – I used it right after for a light plan in the very North and that was very fruitful I think". – Kristin Bredal on 2012

8.4.8 EDUCATIONAL / DESIGNER

"But I thought it needs to be – I think the whole academic program needs to be presented in a maybe more – in a way that, you know, people understand it easier. Both lighting designers and, you know, whoever else that could benefit from… Because I do think that this way of looking at the cities could be widely used for city planners and for municipalities to understand more the cities. […] Well, I used it, I used it for myself a lot". – Kristin Bredal *(on 2011-2013)*

8.5 Financial Ownership

8.5.1 BUDGET MANAGEMENT

"I think probably just after people were questioning the, you know, expenses of such an event [NOTE: the 1997 book and programs] *and things like that. It is usually what happens with a new initiative, and then people questioning, and then probably a couple of years later they - it took off. […] And then there was in 2006 when the second city.people.light - and that was the 'City of Culture' in Rotterdam, wasn't it? […] And then there was an event around that. I attended that. And that seemed very dynamic and lively…"* – Laura Taylor *(on 2006)*

8.5.2 MARKETING OWNERSHIP / NETWORKS / WORKSHOP

"It happened basically - it was triggered to a certain extent by a focus that Philips needed to ***[OMISSIS]*** *create also towards the creative target group, the 'specifiers' as well call them internally, although it is a horrible expression […] //architects// […] //landscape architects, urban planners, these kind of people. So, people that are quite high in the decision chain. And our approach was to also transfer our brand proposition that we have as Philips generally,* ***[OMISSIS]*** *improving life of people. And we wanted to transfer that also in the marketing approach towards this target group of urban planners, architects and landscape architects. And we had city.people.light as a research, although it was the previous version, it was from 2006 if I recall it right. And already there in 2010 it showed a lot of proof that these visions became reality. Because I was working*

on the 'Light and Building' [NOTE: a leading yearly trade fair] *in that year as well and we there showed for example FreeStreet first time to the public world. […] So, the* Light & Building *was kind of the first trigger on how valid city.people.light was and before* ***[OMISSIS]*** *that, it was not used and integrated as much as we would like into our marketing approach, so we decided that we take this and connect with the people that know about it, and then try to transfer it into a marketable activity. And that was then the outcome of the 'Create the liveable cities' workshops".* – Nils Hansen *(on 2011 – 2013)*

8.5.3 MARKETING OWNERSHIP / CRM

"That is true, that is true. It has, and that's again, the thing of being a very sales driven company also for sure, the segments or the people dealing with these target groups, they profit from it the most, because for them it is a door opener, it is a knowledge platform and so on. Taking a bit, let's say, a more abstract view on the outcomes and transferring that also into organisational matters within Philips, is not yet taking place honestly. There are certain attempts that then can be channelled much easier by referring it to the city.people.light research, so that is a bit – but it is a bit backward-engineering actually". – Nils Hansen *(on 2014)*

8.5.4 DESIGN / BUDGET MANAGEMENT / CONTINUITY IN TIME

"I think one other thing that it is almost a shame is that city.people.light was not developed through the complete design process. So if you look at, what, where, sort of, as is if it would also treated a little bit like a unique sort of project, with a budget and a beginning and an end, rather than a structural process, from what I can see. So it kinda tackled sort of the research end, the beginning of the design process. But it was never really developed further - which is a shame. So the approach, the kind of collaborative approach, would have been really nice if that had been taken further into developing tangible, developing products, developing – " – Lorna Goulden *(on 2006 and general approach)*

8.5.5 MARKETING / CONTINUITY IN TIME / WORKSHOP

"It was actually not – it was not limited to a certain extend. We really wanted to make this a continued program, and sort of travel or roadshow it in all the different markets, where it is A) appreciated, and B) also generate additional value. Because, ja, as I said, it's very - the position of Philips per target group in this market is really differing a lot. Even when we look into Europe, it is not that we are all the same perceived in the audience, I said in some markets we have a better connection, in some less – and ja - you have seen it probably in the workshops as well - so, there are some markets that do better and some that do less. So there was never the intention to limit it to a timeframe, it is more an idea of having this as a continuous element in our marketing plan". – Nils Hansen *(on 2011 – 2013)*

8.5.6 BUDGET MANAGEMENT / MARKETING / CONTINUITY IN TIME

"…we did also projects within office.people.light. We did not check - we follow the same structure, funny enough. And I know, I heard from the people that are very disappointed because they expect that after two years, things come out of it – and the thing is that cannot forgotten, and for me a little bit – and for me city.people.light was more successful, because there was a second wave, but still - is very hard to find – […] Also,

because you know, as companies change and movement they need a good timing also, at this moment for the last few years, our company is very much focused on cost reduction". – Oscar Pena *(on 2006)*

8.5.7 MARKETING OWNERSHIP

"Because at that stage, you know, we were still quite market leader, you know. And what I've seen is that after a couple years, like then in 2005 or something like that, you know, we did not do much about the book, you know. So it was there and we were, you know, a bit laying on our lories, because we were – it was very successful. But then we saw the momentum started to be disappear… So, there was the book of city.people.light and that's where I launched in 2005 a program "city.people.light reloaded", actually at that time, that was "The Matrix" time, you know. And at that stage we said: Ok, we really need to do something about it. We really need to start on –" – Fernand Pereira *(on 2006)*

8.5.8 WORKSHOP / MARKETING OWNERSHIP

"I remember by that time, I think it was Dorien van der Weele, it was not Fernand Pereira yet - and he was actually the Marketing Manager in that period. […] And she – Anyway she had the same background as me. We always liked discussing these kind of topics, it was just our general interest I think. And we actually - she was very much about innovation and looking for new solutions – or new solution – new problems maybe. So, we already did this kind of brainstorm. So, I remember we first I did that a kind of brainstorm just within our department, with several experts on lighting, and then this city.people.light workshop, or the idea for it was created. And I remember that my boss was already very excited about it and I don't know if she asked it to me or we just decided together, like, we need to get in there, we need to be part of it. Because very often these kind of workshops in Philips, they are happening with, for example. you, as the organizer and also the facilitator, and then the customers. But it is not that it is so obvious that for people from within Philips that they can actually can take place – or take part. And, so, it was really for us – ja – an achievement to get in there, that Fernand actually accepted us to be part of this and I think it is very good, because we were at that time the team that were always providing the stories, the history, the memories actually of what we were doing – the – we were the "continuous factor" within Philips, whereas all product management, they changed and changed and changed, and we were always there and we - every time, we told the stories, like, we did workshops, this is what the architect thinks, this is what happens in the cities, and I think that was also the idea at that moment. It was good for our department to be a knowledge centre". – Jasmine van der Pol *(on 2006)*

8.6 Post-event / post-program applications, to follow up upon program completion

8.6.1 NOT LEVERAGED

"…city.people.light… – it should be probably even wider shared within Philips…". – Nils Hansen *(on the approach in general)*

8.6.2 WORKSHOP / GENIUS FORECASTING

"I did not do any other future research projects. I remember that I – we did of course strategies and strategies for cities. So, I think it was more like you saying, the knowledge that I gained and using that for projects and for – but there was not a real research. There has never been within my department, any really… research – […] -- program. I remembered that we did workshops, but then again it was very much related to product development. We did workshops on road lighting, future road lighting, and it was – there were scenarios created, so it was a little bit of these kind of – ja, maybe – but it was different – […] It is more intuitive, that you kind of bring it to yourself, because you have been – […] //and that is also a – as a person – and it was actually also part of our responsibility within the department. That is why we needed to be involved. Because we were always supposed to do these things, because we were exposed to this kind of knowledge, or to this kind of workshop and things. So that is why it was – we were – at that time we were supposed to be knowledge centre and aware of these kind of developments, so. So its part of me, but it was of course because I was having that role at that time". – Jasmine van der Pol *(on 2006)*

8.6.3 SWITCHER / BRAND THEME

"I guess, the best I experienced was the one in Rotterdam, with in the panel of experts discussing the outcome of the city.people.light, and there were several more, which I not all attended. But there is one I am missing, and that in my opinion should – I – it should be very logical that one of the, the best platforms to share knowledge raised by city.people.light, is for example the LUCI platform with the city.people.light awards ceremonies". – Rik van Stiphout

8.6.4 BRAND THEME / CRM / NETWORKS

"Maybe then at local level, then they probably, I am sure like in Asia that, you know, when we invited the Rita Soh at that time, that the – ok, they were linked with the Association of Architects in, you know, in Singapore, and this kind of circles. So, this means that later on, I know – I take that example, because I know that later on when they organise another workshop, actually they did also some kind of city.people.light show in Singapore – you know, that was a spin-off in a way and that's were the city.people.light branding in a way, sub-branding if you want, was important for them, because indeed it was, we started again the whole approach, what Philips did in the past and the research and all of that. And that is always, it set the stage, you know. And I know that a lot of these architects, she brought their network of architects into this event, so maybe in that case you can say, yes, that got us access to that kind of circle of architects in Singapore. But that's the really – […] maybe, but I don't have that kind of information". – Fernand Pereira *(on 2006)*

8.6.5 WORKSHOP / MARKETING / WROCLAW

"…basically we have been inspired. "Architects of Light" program was inspired by those two things that you have mentioned – by city.people.light and "Create the Liveable City" workshops. When we were having those meetings to develop certain idea and develop certain activities later on we were thinking, because we had the chance to join a couple of "Create the Liveable City" events before as me and Marek and also our external architect together. And we thought: ok, we have been already doing such small

workshops, not only ***~~[OMISSIS]~~*** *for creative specifies but also for other target groups, like for example for trade… […] …with the use of practical explorations of LED, but we did not have enough background to target this to architects. And "Create the Liveable City" event actually pushed us to do the same in a more structured way and with this, you know, theoretical content to architects and creatives. Because first we needed to have – we had a background and we had the resources as far as it goes about the LED equipment that we could use and have the program enhanced with that, but we did not have quite an idea how to do the theoretical part and how to convince architects and creatives to deal with Philips and to just – to be inspired"* – Dorota Slawinska *(on 2013 "Architects of Light" – Wroclaw spin off into* "Create the Livable City"*)*

8.6.6 CRM

"Philips is two things, it's – I feel that this program is extremely important that they are doing. The way we sort of deal with Philips is when we need their products for our projects… so it is two very different things. I would say. No, I don't think there has been a special follow-up on this type, except from when I joined the trip to Lyon, then there was a short presentation of the city.people.light there". – Kristin Bredal *(on 2011 – 2013)*

FUTURES

8.7 Innovation horizons *(Continuous innovation, disruptive innovation)*

Horizon 1

8.7.1 ROADMAP / FREESTREET

"De-cluttering approach and all of that. And then some of these concepts where just dotted lights, you know, in the middle of the street, or kind of a star sky, all these kind of things which are more airy, no obtrusive poles and all these kind of things. And derived from that city.people.light, so there is a one-to-one relation we put in the roadmap, you know, we brainstormed how we can bring these new solutions with new technology, and that led to the FreeStreet lighting solution that we sell today. It is a product, a catalogue-product, now, which is a luminaire just on the wire, so, which is almost invisible during the day and that during the night you see the only the lighting effect and no poles. […] And the second one was – came also from the big trend in 2007, which was already identified in '98 about sustainability, so both, social sustainability but also environmental sustainability, more energy preservation. And… So that, in 2007 that came quite strong, so the priority setting, although in '98 we were talking about that, and to be green and, you know, but these were not so much translated in the product portfolio – that was a lot about company statement and positioning, in terms of, you know, recycling and these kind of things, but the concepts where not really thought for going really further in terms of energy and – […] So, then… in one of the ideas that came quite strong in several workshops was the – that… there is in a lot of places in cities there is a lot of light when there is nobody, and that sometimes they switch off completely – and this programs – or even dim at 50% or whatever the level, but very late at night, like at 1 o'clock in morning or something like that, where there is absolutely nobody. And still that is not the best way to preserve energy, so the idea that came out of these concepts was: Why don't we put light on demand, when there is someone and that – so we took that idea from city.people.light in 2007, and we derived an innovation program, leading to what is now a product, catalogue-product, which is called LumiMotion, which takes, you know, detects

people in advance and smoothly, you know, bring the lights to a certain level, and then, you know, after they are gone gradually reduce back to a very, very low level. So, we needed new technologies – sensors technology and all of that, it was a real innovation coming out of city.people.light". – Fernand Pereira

Horizon 2

8.7.2 WORKSHOP / INSIGHTS / TECHNOLOGY / HORIZON 2

"…now, let's say, first of all - let's say out of those 200 people they generated I don't know how many different ideas on different levels. Probably only 1, 2, 3, 4, 5 percent will make it to some kind of board, transition paper, towards research and development. But still it's always valid to talk about, and these workshops are exactly meant for that purpose. The way forward internally is not so much, or let's say, is using these visions created as a part of a proposition. So, I will not go to Research & Development and say: ok, you need to develop something like [ba ba ba]. I will go more ok: the trend in urban is going more and more into unified environments or into interactive sensing development, it is going into a direction where we, I don't know, we are putting cities underground - one of the scenarios for example. So these visions are insights on which we build propositions, and these propositions then are created in a technological way within R&D, Research & Development. We also can do that on several levels, it is either an immediate transition into a product development or it is more: ok, this we need to investigate further, because for this we would need new technology. Let's just give an example of adaptable optics. […] In a moment you have a luminaire and it is just static and it can switch on, off, dim and everything but the optics will not change. We have some ideas also based on for example city.people.light and these kind of visions on would not it be great if we would have some kind of a fluid optic - a fluid optic that you can control. So, the luminaire as such is becoming a living thing to a certain extent and the light is becoming a living and reacting thing. So, this kind of things are parts of propositions or triggers to research to investigate further, on technological viability but also on acceptance". – Nils Hansen

Horizon 3

On the other hand, in full continuity with the analysis included in the previous Prefigured Code above, the ambition to reach at a higher level of reflection, here being design and spatial reflection –as done in 1996 at level of foresight and concepts- remains as a strong undercurrent within the internal narratives associated with this class of programs. Such undercurrent is operationally enabled by means of simple creative management tools like sketches, that stand as perfect "posits" according to Bell's definition of those forms of surrogate knowledge that are needed to study the future:

8.7.3 SKETCHES / HORIZON 3

"The sketches you can sketch the things that are not possible. So that's perfect. So you can have a lot of blue-sky thinking there. Because you sketch and it does not matter if the product can do it, but when you actually invite them to make a scenario or set up or scene with real products, of course you are stuck to reality – today's reality in terms of technology and products. And, so I think it has a very different outcome finally. But I – it is funny, because it is more complementary, I think – I don't say that the discussions were of less quality – I don't say that, because in the discussions you can discuss things

of tomorrow and developments of tomorrow and the solutions…" – Jasmine van der Pol

8.7.4 HORIZON 3

"We wanted to see – and if the future is no artificial light, let it be. You know, it is like understanding genuinely, what's gonna – because the market will dictate what's gonna happen. So, it was really understanding this, and then – and we see that already the trends, that adding more layers of lighting is gone…" – Fernand Pereira *(on 2007)*

***8.8 Structures** (Workshops, Matrix)*

It might be no surprise that, central to this specific "icebreaker", the "book" as editorial product will return, as well as the "urban futures matrix" as anticipated in the theoretical Chapter 4, will be described, both being reference deliverables respectively of the entire city.people.light program (editorial product) and of the High Design analysis phase (matrix tool). From these delivery milestones, a number of variations and applications were developed, *de facto* extending the reach of city.people.light visionary insights into real world projects:

8.8.1 MATRIX / TECHNOLOGY

"I think it is helpful in the analysing part of what this particular city or place needs, and it's sort of a helping tool to do the breakdown right and when you do sort of have a clear sort of vision and goal of what you – what you think this place needs, and this is discussed and communicated with the municipality… then I think it can actually be used as a very clear tool – but, well, you know I guess in a way for Kirkenes it came out to a technical solution in the end, which is the one I am proposing now for Philips to make, so yes, on their ideas, but then that is a long, long road to travel before then - if it is actually going to happen, you know". – Kristin Bredal

8.8.2 WORKSHOP / MOCK UPS

"But that is why I think it is very – I think – I don't say it was funny, because it [NOTE: 2011 - 2013] *was very different from the first – very different from the first* [NOTE: 2006] *in that sense – different – more concrete, more practice – more focused on practice. I think it was good for the people that were there, actually. Because it was really giving them a tool. And I think it was the right part of really theory, like of course it was for real but of course it was linked – the link with lighting even, in the – when you spoke or when I spoke – but there is the – I mean, it was more accessible, that knowledge, and I think that was – I think it is a nice thing, because I think it started in the 2006 as a really like, as I said, a privileged thing, you know, only very exclusive from – only the real high end thinkers and decision makers and you know – and so I think actually also in terms of general strategy it was kind of nice, as a – over the time it deployed till we get it to everybody, and I think that 2011 was a step in that direction, that you say: we had that city.people.light, and we really need to work on this now. Everybody needs to work and start thinking of these things and contribute to those things. And I think that that was more successful maybe in the last one".* – Jasmine van der Pol *(on 2006 and 2011 - 2013)*

8.8.3 MATRIX / FALSIFIABLE

"…what we wanted to create is really a seamless experience in a quite short time-frame that really leverages from a more scientific approach over a transfer into lighting to really experiencing and working hands-on with it. That was the idea. So for us the whole scenario or the whole workshop including the research or the revived research was meant to be one string of, ja, of transformation sort of. […]". – Nils Hansen *(on 2011 – 2013)*

8.8.4 MATRIX / DESIGN PROCESS

"Well, it [NOTE: the matrix] *is associated with the very beginning of the project. So it is essentially when you are analysing the new project. Once you (…) you actually start the design process. I think the most valuable input has been for that beginning. So that kind of structured, that's were it has contributed//"* – Tapio Rosenius *(on 2011 – 2013)*

8.8.5 WORKSHOP / MATRIX / BARTER

"Intellectually, knowledge wise, but for sure and that would be hopefully in the end result as well – commercially, yes. But in the end, let's say, the content generated and this knowledge generated during those workshops form the side of our audience towards us should help us to do the right things in the future, both from product development but also from topics that we need to address. And the other way around, the knowledge that we try to transfer during this workshop, the matrix for example, but also lighting as a tool in this process, should help in the future for our audience to embed it at an earlier stage, and then for sure also think of us as a partner in their projects. And then we can also leverage on it commercially". – Nils Hansen *(on 2011 – 2013)*

8.8.6 MATRIX / DESIGN / WORKSHOP

"… So, it was for our view ***[OMISSIS]*** *good if we could also take the visions, take these expert interviews and bring them in the new time, so to speak… Exactly, you really start from a very broad matrix of city.people.light with the different urban development possibilities to - let me give you some examples, talking about lighting design as a function to - and now it is getting hands dirty and really work on it and create your visions and then you bring them to life in one go. It is a very challenging set up, honestly speaking, because we keep them really busy".* – Nils Hansen *(on 2011 – 2013)*

The Urban Futures Matrix, introduced above as element of external continuity with the quotes by Kristin Bredal, Zenisk, Oslo, appears therefore also as the unifying factor within the workshops, and beyond, offering a scalable governing principle for city.people.light as well as subsequent urban futures and strategic work:

8.8.7 MATRIX / SOCIO-CULTURAL

"With "matrix" you mean the socio-cultural forces? […] Yes, it plays a role because it is a – it is a scheme that I can look at and I can think, you know, what do we have here – you know, what kind of – how can I apply this for the actual project I am working with now. And it helps me sort of broaden my mind on thinking about, you know, how to apply lighting to the city. And also I can use it for discussing with the – I could have used it more with the customers if it was maybe shaped a little more easy to read. So then I

would use them a lot more actually". – Kristin Bredal (on 2012)

As anticipated above, the city.people.light approach does not however offer only the book as potential reference product. The adoption of the urban futures matrix as an operational tool for everyday design practices was instead achieved at Zenisk, the lighting design firm by Kristin Bredal, after her participation to the 2012 *"Create the Livable City"* event in Copenhagen:

8.8.8 MATRIX / LEVERAGED

"What I have done is, I used it, I introduced it in the office, I used it in my – in my office and as a tool for my work". – Kristin Bredal

As proven from the above quote, the traction of city.people.light assets within Bredal's practice stretched into the adoption of socio-cultural modules from the urban futures matrix into the concrete phases of a urban lighting delivery project independently led by the firm in Norway. This might further prove that the approach is not only transferable but also scalable but also flexible to specific needs and requirements in different professional contexts, however distant this might be from the visioning and concepting of a futures research program – it must be noted how the below quote entirely pertains a follow up application of the urban futures matrix beyond and subsequent to the city.people.light program of reference, in this case: *"Create the Livable City"* 2012 workshop in Copenhagen:

8.8.9 MATRIX / LEVERAGED

"Well, we did the light plan for a place called Kirkenes and that's the very east in the very north of Norway. So, it is actually further east than I think – further east than St. Petersburg if you look at the map. It is in the very North-East of Norway. So, it's – it is the same as in Hammerfest, it is a two month dark time period where the sun is below the horizon and then midnight sun. And this town of, well I guess not more than 10,000 people is very special, because it is an industrial town where they have the mining, kind of almost right in the centre of the city, and it reopened in the late '90's for iron. And you know iron is so needed now in the world. So, now the mining is going really well, and they have also mechanical, how you call it, work for boats –were they do boat repair. And they are because of the oil now in that Barents Sea and because they are expecting the ice to melt that they will get a lot of traffic in the north. They know that they gonna grow. This city is gonna grow, a lot. But the case now is that they are lacking workforce, because nobody wants to move there. And it's a multi-cultural town, because you have Norwegians, you have Sami people and you have Russians, like the three main people, groups and they also speak three different languages, and then you have also a multinational community of people from all over the world that come to work in the mining. And they just know that they need to develop the city for the future, and they plan to build a new part of the town and sort of strengthen the town, so… when we came in there, we looked at the whole city, we looked at all the set up – what did you call that? The vision of the - you know what, hold on one second, I just gonna run and get something. Ok? […] I actually have that page posted on the wall next to my – next to my workspace. The – one of the things that we looked for Kirkenes was to see if we could develop a set of tools based on what we saw that city was needing. And we thought that it was weak on identity, it was also very weak on, you know, just the average sort of comfort in the dark time. And the – we also thought that we should try to use lighting for

sort of belonging, city belonging, because of this multi-cultural society. So we decided to use these three sociocultural forces to create a set of tools and then make a sort of a breakdown of all the areas in the cities and apply the tools where they were needed. So that was kind of structural, but it was also very helpful". – Kristin Bredal

8.8.10 THOUGHT LEADERSHIP / WORKSHOP / VISUALIZATION

"A program. Well, at first it entails more the sort of theoretical take on or an inspirational take on things, followed by practical workshops where people get their heads together and actually do lighting installations based on concepts that they created themselves, and that's very process driven. That's then sort of recapped the following morning with analysis of what was achieved, open discussion of what people […] and then sort of punctuated by some kind of keynote, invited keynote in the end… […] …Well, I thought from your side, it was pretty systematic, and pretty formal - from my side it was more informal and from Philips side, well, it was - it was pretty formal from Philips side as well, because they did manage pretty well all the visual materials. So, all the video works and everything and after - and very shortly after each event, a video compilation of that event went online and it just went out and so the information went back to all the participants - and everything else. I think it was pretty formally managed". – Tapio Rosenius

8.9 ***Forecasting Rationale*** *(Falsifiable Forecasting, Genius Forecasting)*

8.9.1 WORKSHOP / FALSIFIABLE

"The added value of the expert interviews was really putting it – the whole workshop-scenarios in a platform for collaboration. It is not a selling attempt. It is a platform where we want to interact with this target group of architects and urban planners, and the expert interviews are one way of, for one getting also the reputation in this workshop scenario, to talk to this target group. So, we need to show – we are just a manufacturer in the first place, if we don't connect and show that we understand and show that we get impulses from these target groups – the whole of this target group will not listen to us, because they just will think that we just want to sell something. So the expert interviews are one way to get also some kind of this reputation in this program. And secondly, that said, they create a valid scientific layer on which we then can build to transfer this research, the matrix, all the outcome of city.people.light research in the past into actionable workshop scenarios that then people can really work and play with in the real setting". – Nils Hansen

8.9.2 WORKSHOP / GENIUS FORECASTING

"It was not implemented structurally, that is a little bit – of course we debriefed, I remember we discussed the different topics that were – that came out of the workshops. We of course studied the concepts because we were… I remember that we worked on that, also on how that could be turned into product solutions. I remember that we sat together with product managers, but I think there was – also maybe because I was not deeply involved in the research. There is still – there is still too much focus on the sketches, on the product solutions instead of actually getting the deeper understanding of city development. And although it is always possible to try and to give to the extend to say: we discussed this kind of things. Still I think you would need someone like you in form of a person, to really open their eyes and to think like: Oh ja, this is really interesting, I am going to get to know more about it, or – So, I remember that was also

pushed by the fact that we were – by our task and our responsibilities, we were quite fast pushed into thinking of what it could mean for product development" – Jasmine van der Pol *(on 2006)*

8.10 ***Forecasting Techniques*** *(Generating, Integrating)*

8.10.1 INTEGRATING / DESIGNER

"I think I remember that was a big change, ja. And what was specially interesting, was that it – it allowed me to actually dive into this into this thinking about urban strategies. And what we did together, and I think that was also very interesting part - was to make a translation, like: what could that mean for lighting? Because that is actually what I think we need to work on, because, ja - these are things that we hear a lot about: What can we actually do? What can we do as a lighting designer? What can we do as a municipality to really improve certain things? How can we help to regenerate spaces and work on the bigger themes? And I think that is something that is so valuable for people, and I think that was also causing great reactions on the people, because you are not only a lighting designer, putting some lights there just to make it lighter, you know, you're actually – it makes you understand that even though people think it already but it puts you in a frame. Like indeed, we need to work on these things, because there is always a reason for it that you contribute to certain solutions, and I think that there was also – for me a very interesting part is that it was really working on those links" – Jasmine van der Pol *(on 2006 and 2011 – 2013)*

8.10.2 INTEGRATING / INTERVIEWS / WORKSHOP

"Well, what I was - first of all I think there was a very big part of research done beforehand. I remember that there was a lot of interviews with architects and that was…, I think, a very strong part of that version. There was very big architects interviewed, Richard Rogers… there was Odile Decq… There was a lot of people that I was, that gave their opinion about urban development and urban trends, and I thought it was very interesting, and – I remember that during the workshop it was also impressive for other people, because you got a very compact amount of knowledge and insights in this - presented like this, very easily, very easy, accessible for people during the workshop. I remember the workshops they were – I don't remember – I think fifteen, ten to fifteen invitees. Something like that. Was it more or less? Something like that". – Jasmine van der Pol *(on 2006)*

What is the turning point where the open generative exploration converted into a normative generation? According to the following quote, a "point of non return" should be identified in the pivotal workshop moment when passive reflection ends, and active concept creation, leading to sketching, begins:

8.10.3 SKETCHES / SCENARIO / GENERATING / WORKSHOP

"But maybe also because they were finally – there was a long moment for sketching and for idea generation. And of course this time it was hands-on. As soon as you started hands-on, you don't do idea generation any more, you start to make a great lighting scenario. But that's not idea generation. In that sense […] I think I actually it was the right the moment to do it in a different way – I would actually normally say that for such a workshop, I think sketching is better, when you want to get really future scenarios out

and ideas… I think then sketching is very fine. But, you can't do it the whole time like that, because I mean – future scenarios, they don't change in a couple of years, they don't – so what should we do then for the years later – we should have the same sketches back? …and people want to feel also that they are creating new stuff, so that is why I think it was a good choice to not do sketching again. And I think it was fine balanced this way, too, actually – because there was a lot of – there was more focus even in the last part on really the content – I don't know if you agree – there was… a big part of your presentation was there and the panel discussions, so there was enough theory I think, so it was good also to add a practical part –". – Jasmine van der Pol

8.11 Technology *(High Tech, High Design)*

8.11.1 TECHNOLOGY / REFLEXIVE

"To a certain extent, I am not sure if it is all driven by city.people.light but it definitely plays a role, if you look into these developments like luminous textiles, it's a first step into the direction of surfaces producing light, let's be black and white or a bit simplified, but there are certain joint ventures within Philips that go and explore new ways of creating light, in a way. That can be like I said wall thingies, but if you also look into new technologies, we are very much driven still by the technological development, we are an engineering company still. But we are improving on transferring technology into value for customer. If you look into OLED, the big upcoming – the next big revolution will be the OLED revolution, if we believe the knowledgeable people, then the whole industry will change again, you need to have much more collaboration and we are already working on these kind of programs, partnerships – on a small scale – but we are trying to re-build our organisation also in a way to respond to these future challenges". – Nils Hansen

8.11.2 TECHNOLOGY / HIGH DESIGN

"And overall, the impact appears to be pretty - pretty balanced - and also the sort of memory -- the feedback that we get from people is that it is not sort of technology driven, which is personally for me a great plus -- when somebody who is not necessarily from the lighting world enters the lighting world for a day and a half and comes out of it with much more kind of a conceptual, psychological, analytical kind of thoughts than technical thoughts. That's a really pretty good achievement". – Tapio Rosenius *(on 2011 – 2013)*

8.11.3 HIGH DESIGN

"Well, actually – and now I see it even more clear because now I am 100% focused on projects, which is more – it's funny, because it is more thinking about solutions straight away - it's more like an engineer approach, you get a problem in and you immediately offer a solution. You have a little time to – ja – to think about – how to stay – about social issues, about – you don't have so much time to really create visions, and I think - I remember that, when I was working at Philips in the LIAS, that there was far more space for that, so I think we studied more the development of cities, we studied more possibilities with lighting in general, the different technologies and how that can bring forward certain developments… So, I think there was a more set back from the reality, whereas when you are a lighting designer there are often really into the execution, let's say. So, less time for high end thinking. On the other hand actually when you have both experiences, right now with a lot of projects, you can actually get the picture clearer, because of course it brings a lot experience and brings a lot of stories, when you have

the projects. So, I think it is actually a nice combination of two professions that will lead to – ja – a higher knowledge of the topic […] Well, it finally became two separate professions. I think when I started it was more closely related, but at a certain moment within Philips there was a stronger focus really on studying trends, on developing new products, on creating visions for that about workshops or training of people - was just getting a little bit away. I think it is still possible to combine it - it was just at that context not really the case. But, I think it's - when you are a lighting designer and you are working with a lot of projects. I mean, right now we just have a lot of projects and they short deadlines. And I can really see that my job is quite different from what it was before". – Jasmine van der Pol *(on general approach)*

8.11.4 HIGH DESIGN / MARKETING

"It's definitely not only a marketing activity. So, it depends on how you define design, but let's say, the whole R&D process is a design process in a way, so it is designing new solutions, not so much from a - from a appearance point of view but also more on what type of value is the – what type of, ja, what type of, let's say problems it should solve. In that sense I would definitely call it a design program, although it also has for sure a very strong marketing focus, because for us, I said, it is a customer relationship tool, it needs also in a certain time frame, also reflect in sales development, for sure – so, it is actually both. I would not also – I would not even say its one more than the other, it needs to be both and both can be, can live wonderfully next to each other in this process". – Nils Hansen *(on general approach)*

8.11.5 DESIGN / DESIGN PROCESS

"I think – Ja, the fact that it is – I mean, I don't know – Design Thinking is not impossible amongst engineers, or it is not impossible amongst other people that have a very creative frame. So, I can't say that it is because there is Philips, and it is design that it is possible, that is – But I do think that you need a certain level of creativity and – creativity is not – I think it needs certain methods, certain ways of thinking to get here. But maybe there are people that have that capability to think in such a way in McKinsey too. I think it is – I think there was a lot of knowledge in your department when you were at Philips Design, about methodologies and – or ways to analyse these things or to work with these processes. And I think it is very typical part of Philips Design at that moment – but there is probably other places where you can find that expertise as well, and I think it is a very specific expertise". – Jasmine van der Pol *(on general approach)*

8.11.6 DESIGN / DESIGN PROCESS / TECHNOLOGY

"The process […] Well, it was like: how else would you do it? - once you have the process - a proper design process in place which includes the concept control and analysis and idea creation and particularly the co-creation aspect of it. And then you work that towards a technical solution. That's - that's where you got it". – Tapio Rosenius *(on 2011 – 2013)*

8.11.7 DESIGN / DESIGN THINKING

"I think they are much more related to Design Thinking. […] To the creation of the concept, you know, and to showing people how they can achieve that concept. […] How we can come up to their mind and to help them". – Dorota Slawinska *(on Architects of*

Light)

This relationship between technology roadmapping and Design Thinking is seemingly defined in terms of priorities in simplified fashion, by way of describing the key priorities and urges of workshop participants addressing people's preferences and preferable futures in terms of quality of life, and not from the perspective of technological roadmaps:

8.11.8 TECHNOLOGY

"Actually the good thing is that those guys are not technologically driven, they are in their own discipline, they have a certain knowledge about lighting, but probably they are not fully aware of what lighting can really do for them. And it is not so much about the technology, it is more about the "medium" light, ***[OMISSIS]*** *if you would like to say it like that. And this thing of lighting can be – can be tackled without any technological reference. It is lighting and then – if you say daylight harvesting is a big topic in indoor architecture, which it is, that has nothing to do with lighting, but still our products need to respond to that, because it's – our products then need to be, ja, able to adapt to for example low daylight or high daylight, or whatever. So, we need to interact with these kind of things, and that has nothing to do in the first place technology. Technology is just a carrier to create solution".* – Nils Hansen

PRODUCT

8.12 ***Book*** *(Editorial Design, Distribution)*

8.13 ***Storylines*** *(Narrative Practices, Para-scientific Structures)*

8.14 ***Concepts*** *(Physical objects, social spaces)*

8.15 ***Symbols*** *(Creative Leadership, Commercial Focus)*

PROCESS

8.16 ***Relationship Management*** *(Community versus CRM)*

8.16.1 CRM / SWITCHER / WORKSHOP

"I am not sure if we can say that because of city.people.light we got a access to completely new ways – well, as I said before, for some of the people that were involved, deeply in the workshops for instance or coming to the forum, at least that opens the doors to their office for instance, to their practice, to projects –" – Fernand Pereira

8.16.2 MARKETING / SWITCHER / DESIGNER

"Well that's driven by Philips's marketing, in my opinion, so they invite the people they find relevant - they wanna like create new relationship, break into certain studios, break into certain fields - you can totally see that from the kind of people that are coming in. So, there are marketing drivers there and these where of course pushed by the local Philips organization… […] …programs like that certainly improve the image amongst high-end designers - not only maintain. Because Philips image amongst high end

designers is not necessarily that great. So, I think every event like this certainly improved it". – Tapio Rosenius *(on 2011 – 2013)*

8.16.3 MARKETING / SWITCHER / WORKSHOP

"But then we gave some quotas per country, because of course you cannot invite the whole planet, so there was a limitation – even just the venue, would not accommodate – […] That was Rotterdam, indeed. [NOTE: in 2007, book launch event] *[…] So, the workshops then – we selected, so we wanted to have it global, so we selected a couple of cities around the world, that, you know, where we could have a kind of regional view point, then the invitation was – so, we defined it – so, I defined what kind of customers should be invited. […] Or prospects, exactly. Not – ja, customers is the wrong word – in that case, the key stakeholders, let's put it like this. […] And then – Ja, but then I, of course I don't have the contact in whole parts of the market who are the best to represent. So then we – I discussed it at that time with the marketing / sales management of that country. Saying: Ok, please send me some potential key stakeholders. And then based on, you know, we received some names and then we had to make the selection, but then it was more based on having profiles that add to each other. So like if there would be ten great lighting designers, then we would not like ten". –* Fernand Pereira *(on 2006)*

8.16.4 MARKETING / SWITCHER

"It changed at that moment, as soon as top level people within Philips, especially Philips Lighting, noticed that – from that moment there was one person, being me, who was acting in a formal way as a program manager on the lighting projects and activities of the cities, with this future vision in the pocket… As soon as this was formalised, I – for example I got this invitation by – from Frank van der Vught from Philips Lighting, the CEO – CEO from// […] Ja, CEO of Philips Lighting. […] He was the highest on the – in the – on the [foreign] Boschdijk [/foreign]. Philips Lighting has the commercial side of the business. And I was invited to come over and have some talks about of course: who is this Rik van Stiphout, what is he promoting, and what's in it for us, eventually […] I felt, as a representative for the city of Eindhoven, I felt very honoured that we could take this opportunity, but also in a realistic situation by which I mean getting involved in this evolution. Because in my opinion, what was very important in those days is that we were able with this new vision to get to a new level of thinking of developing urban lighting on a governmental …". – Rik van Stiphout *(on 2006 follow up)*

8.16.5 COMMUNITY / SOCIAL MEDIA

"…it's very much pushed by the people that are working actually on it, so it's – the feed is very important of people like Philips people for example. And I don't think that there have been some reactions – but some – I mean that is not a community. If you have five or six reactions, I don't think that is good enough. And actually I also – what does it say? – I know that from another – there are a lot of other platforms on LinkedIn, discussion groups, it is very much – I mean some people they want you to know these things but then you probably go to conferences but you don't go only to the internet to have some sentences from – I don't believe it is the right way to have these kind of high level discussions, I don't think so. You don't go too much in depth, when you are just chatting on the Internet. […] It is a people thing. It is really the people – It's really – I mean bonding – it is not only on the Internet. It is – you need to know a person before and

share something together before you get that". – Jasmine van der Pol *(on LinkedIn online group 2011)*

Here, social media are not mentioned in terms of their marketing relevance but as community building and networking engines. First, this last quote highlights the careful balance to be achieved in terms of always providing elements of content to all stakeholders, as motivational triggers to join conversations. Secondly, it might be noticed how digital media represent a challenge in the city.people.light format, and not –as one might perhaps expect- a natural extension of the networking-based approach. Because social media are paramount whenever there is the need or opportunity to create (perhaps volatile, yet intense) convergence of individuals, it might be observed how this small detail highlights "networked community creation" as yet another one potential weak spot in the city.people.light portfolio of capabilities at Philips Lighting.

8.16.6 MARKETING / SWITCHER

"Of course, I think you only can perceive it in different or maybe even to put it into other words, in both ways. You know, in a way it is also a commercial factor involved. […] Marketing. Because once we came up with this new, future, different approach on the lighting activities of the city, then companies like Philips show a new interest in a city like Eindhoven because maybe they can sell different things or more things in the near future. But the other achievement was that I – I thought I was able to conclude that - what I wrote down, as our new strategy towards the future, was interesting enough on the content side for the people executing the city.people.light platform, to get us in this platform//…" – Rik van Stiphout

8.16.7 COMMUNITY / WORKSHOP

"I don't think you can call it a real community. I think there is of course a kind of a buzz around this at certain moments. But I think a community is maybe a little bit too much, although – I mean, what is a community? It still happens when for example I go to a meeting or a, let's say, a conference – and you meet people again that have participated in workshops, you still come together again – so it has created some kind of bonding, let's say, between people – with me but also other participants I say that they say: oh ja, we were doing that and – so, I mean it created a kind of community in that sense. Apparently it brought something to people, and that shared thing that will always remain, but it's of course a small group, so can you call that a community and how strong is that bonding, I don't know. I would not give it that name" – Jasmine van der Pol *(on 2006 and 2011 – 2013)*

8.16.8 COMMUNITY / MATRIX / WORKSHOP

"…I think, ja, community implies for me that it is really a limited, a group that is really close together and kind of following this matrix. That would be a step to far. But what I think is that these workshops created a lot of awareness and the word spreads, both for the research as well as for Philips as being a partner in this process". – Nils Hansen *(on 2011 – 2013)*

8.16.9 COMMUNITY / NETWORKS / WORKSHOP

"…because the workshop was with other lighting designers and landscape architects and architects, and that's always good to meet colleagues to get to know them and to discuss. And – so, that's always rewarding, I think […] when you don't know about people, you don't know about them, and then a workshop like this sort of broadens the field for the lighting designers and the landscape architects and makes it a platform for collaboration, and exploring, exploration, and I think that's very, very important and valuable […] I can't say that I have been in contact other colleagues about this afterwards". – Kristin Bredal *(on 2011 – 2013)*

***8.17 Openness** (Co-creation, Contribution - for professional stakeholders)*

8.17.1 CRM / CONTRIBUTION / WORKSHOP

"So, the first one was more kind of hierarchical, and formal and pure in a way. […] Maybe that is why it needed sort of two years before it actioned, because the business was not on board. […] And the second one, then you knew immediately, because there were customers – so it also served even another purpose, it was sort of engaging with customers on the project. […] I don't know if that is always – maybe then you have too many purposes of the multi-purpose-strategy then - they have the innovation, and the subsequent PR, and then the kind of entertainment of customers during the workshop as well, it's maybe it is too many - too much". – Laura Taylor *(on 1996, 2006 workshop format evolution versus professional audiences)*

8.17.2 CONTRIBUTION / ARCHITECTS' APPROACH

"Because at that stage, and probably at that moment in '95 or whatever the time that was, before my time, when these decisions were made, that was probably the right thing to do – because we had maybe even more knowledge in the market than – there was much less probably awareness about, you know, urban futures and also as I said, you know, the market was so much technical at that stage, so that probably was a good thing to also trigger and challenge these guys also a bit inside-out in a way, you know, to say: hey, this is, what if we would do this… you, know to really trigger. I think that 10 years later, the situation was completely different. And I wanted that program to be outside-in". – Fernand Pereira *(on 1996 and 2006)*

8.17.3 MARKETING / ARCHITECTS' APPROACH / DESIGNER

"Ah, for 2006 it was a combination of decision makers in the municipalities, or decision makers in general, and in combination with architects and lighting designers. I think that in 2011 then there was in principle the same, although I think there were less people from – less decision makers, maybe. And I think in principle it was the same, but I think that there were less famous people – that is maybe wrong to say – there were more younger people. The audience is different in the sense that there was more people without a lot of experience in urban planning and in thinking of city scenarios. I think". – Jasmine van der Pol *(on 2006 and 2011 – 2013)*

8.17.4 CONTRIBUTION / CRM / WORKSHOP

"Maybe because it was very new and it was – I don't know – at the time, maybe there was more the economy doing better, so people had also the chance to just fly around and participate in this kind of workshops. Today it is not that easy to get actually the time of architects, of thinkers, because they can't afford to spend so much time on just talking and relationship building. That is a little bit sad to say, like that, because it is not only talking and relationship building, but I think the new – the fact that in 2006 it was really new, "super new" for everybody, and everybody heard about it and it was really an exciting thing. And the fact that the economy was doing well, I mean I think that created – those things together created it into a very high profile thing or at least we got the right people in and, ja. I don't know about 'Create the Liveable City' – I thought actually it was – it was interesting finally, because we did not only have the top notch thinkers, and city planners in, but we got a lot of people who were working with lights and that was another target group finally, it was more hands-on finally. Then before, maybe. And more younger public, less experienced, but it did not – I don't think that it – it was just different in style, where in the first one a lot of people would very – with thoughts – and we would needed to get those thoughts out of them finally. And I think there was a more different character in the last version where we talked about things and I think it was very eye-opening for a lot of participants. And it was a real moment of learning for a lot of persons. But I did not feel that there was so much input from their side. It was less a platform than it was in the first part – in the first version. It was more like we shared the knowledge of the research with them, and then they we were doing the workshop and playing with the light and of course we talked about it, but there was less coming from them" – Jasmine ven der Pol *(on 2011 – 2013)*

8.17.5 CO-CREATION / WORKSHOP / THOUGHT LEADERSHIP

"I am not a specialist in the definition of words, but at least from my definition of co-creation, is like – we, so, it is co-creation between themselves, so that means that everybody injected in this workshop, his knowledge about the market, his knowledge also about how he sees the trends based on experience, also based on his own research maybe, so it was really like, everybody putting together, you know, some, you know, their knowledge to create something together. […] You know, if you look at the city, where I am based now, in Lyon, where every – it's a master, a lighting master plan for more than 20 years, and it was adding layers of light and now it is complete the other way around. It is de-lighting in a way, and lowering the levels and all that, so… if you as a manufacturer don't understand these kind of mega trends then, you know, then you are developing the wrong solutions for the future". – Fernand Pereira *(on 2006)*

8.17.6 CONTRIBUTION / WORKSHOP / DESIGN

"They were supporting - they were supporting the workshop participants, who took the role of the designers -- I did not take the role of the designer - the participants were - and the - each group would have one or two or three Philips technicians involved who then helped with the realization. So they had a - I think very meaningful supporting role - of course they were also contributing to the design and maybe - maybe in certain cases driving it in certain ways, which is normal - I'd say that is group dynamics". – Tapio Rosenius *(on 2011 – 2013)*

8.17.7 CONTRIBUTION / WORKSHOP / CO-CREATION

"Well, I sort of went there to sort of share my experience and to do collaborative workshop with the people with the same profession. And I, I think it was a bit, to begin with, a bit unprepared on what to expect. Of course as always I am so busy, so I never have time to prepare properly, but I found the whole workshop very, very inspiring. It was for me it was perfect. And it was very important to get, for me to get the sort of a closer look at what city.people.light actually was". – Kristin Bredal *(on 2011 – 2014)*

8.17.8 CO-CREATION / DESIGN PROCESS / WORKSHOP

"Well, the practical workshop. Because until that point the role of the participant was basically to sit in the audience and listen to lectures - but once the - the workshop took off - from that moment on, it was an extremely co-creative environment. […] … so it started off from concept analysis - what the participants -- they could even pick the site themselves, so nothing was made for them. And the whole, the whole process was structured in such a way that it was promoting the conceptual thinking and in fact insisted on concept presentation and narratives and things like this -- and it started of like a real world, proper lighting design process - it started from concept and then the technical aspects came later". – Tapio Rosenius *(on 2011 - 2013)*

8.17.9 CONTRIBUTION / DESIGNER

"I just think it's difficult to take a set of – a bunch of equipment and do an idea of an exterior, interior – but that is also because, you know, I am a set designer, so I create cities on stage and you know for me it is a completely different process of conceptual work and very, you know, it has to be good to explore it and experience it. So, but that is ok, because it is interesting - what is interesting with the workshop is to find out how people think differently about things. You know, what they perceive and what their ideas are and how they deal with it". – Kristin Bredal *(on 2011 – 2013)*

8.17.10 CO-CREATION / WORKSHOP

"I think, they – I mean – they will all score in everything they will bring. It will be a part of themselves. I think that is also what has been asked. Finally we have – there were – we had also these panel sessions where they have asked to give their input and their vision. It was of course – they gave a part of themselves during the workshop. When they made lighting scenarios and doing sketches and ideas. So in that sense, but it was not the co-creation of the – they gave something from themselves, but I would say they were contributing. For the whole event, it felt more like: we give the framework and the guidance – a solid framework, so – it's not that they can completely change the content. They can comment on it and they can give their versions, and I remember in Copenhagen there were a lot of people that did for example – felt – maybe Copenhagen was a little bit different from other cities [laughs] and not so much having these urban strategies that we gave them to work with and I thought it was very funny, because there was a lot of – ja – there was not always a complete agreement on certain things, but still the framework was quite solid, let's say, and when they had to work with different themes, they were – ja – it was always coming from us, finally –" – Jasmine van der Pol *(on 2006 and 2011 – 2013)*

8.17.11 SKETCHES / CO-CREATION / DESIGN

"I remember that for the other (2006) session that was indeed – I mean – the participants they were sketching but you can't really ask that to go all the way, because they need to talk and to think, so I remember that the set up was more like – ok, so they get the basic ideas, and they can quickly do a sketch, but it is really a fast sketch, and then in order to publish it and to show it, I remember that Dido and that there was another illustrator of Philips Design, they were actually finalizing it or making more presentable. […] It was more final sketches and of course there is always something of the drawer itself in the sketch, of course, that is definitely true. And I was actually hidden, because we wanted to – we got the agreement of Fernand to participate at that workshop, because we were supposed to be – we were a knowledge centre, so we got that - we were allowed to be in, to know, and to learn, and to – but we were hidden, so we were supposed to be illustrating – I was supposed to be an illustrator". – Jasmine van der Pol (on 2007)

8.18 ***Participation*** *(Participatory, Normative – for non professional stakeholders)*

8.18.1 PARTICIPATION

"Because finally – I don't think that you have, that person would feel also a little bit lost, because you talk about lighting, but she does not – that is not understandable for that person maybe. I don't think that is the right moment, but I think those moments should be created. And I think that also when we speak about urban trends, the opinions of those people and the feelings of those citizens in their city that has been consulted hopefully when these kind of – or when this – when these trends are created, I think – when a trend researcher would do that – I mean it is all coming from everywhere, it is not only from high top end saying: ok, this is a development. It is coming from all different developments and opinions, and processes within society, it is not". – Jasmine van der Pol

8.18.2 PARTICIPATION / WORKSHOP

"In the actual workshops scenario, I would not do it actually. […] Ja, because it would kind of disturb the urban planning part in it. Because everybody has a very personal opinion about it: I don't like the way the street-luminaires look in my area where I live. But that is just a very small cut out of a bigger problem. And when you bring this very specific focus in these workshops you lose a bit the bigger picture, and that would be a pity, because then also you start – you get into discussions that might be useful for this one person, but not for the group. So therefore I would always say keep it on a professional level and not involve citizens on that level […]" – Nils Hansen

8.19 ***Networks*** *(programmer, switcher)*

8.19.1 SWITCHER / CRM

"I am honest about this, I never felt in – by any means and in any occasion// […] //uncomfortable because of a supposed question - and then I have to include Philips in this contract… […] During the process of this development of this new vision we came in touch with many new people, me in person eventually. There was a lot of media attention for the way we picked up this theme in a totally new approach. So, we had some even American leading magazines like the Architectural Lighting Magazine, which

spent some pages to our new vision and the holistic approach we tried to promote in it. And that also opened the doors to another level in the lighting industry, in the lighting business, around Eindhoven and abroad. And therefore I met some people within Philips, which were not reachable in former days. Because of the new approach they got interested in how Eindhoven tried to evolve its own thinking about lighting and about the future in lighting. And from one moment to the other this turned out to be that interesting that I was invited to join this workgroup sessions in Lyon in 2006, I guess". – Rik van Stiphout

8.19.2 SWITCHER

"And the other mechanism is – that we, we took the risk, me in person, to enter this platform with this, so to say, simple goal, once you are on a platform, then you can also disseminate this simple fact that you are on this important platform. But on the other hand, you also, from that moment on, need to prove that you are worth being on this platform. And that's something which is – is even more important than only being on the platform. It's like, if – like entering in 'So You Think You Can Dance', *you rehearse one song and one dance and you are send to boot camp, for example, and there you fail, because you are only able to do one thing. But the skill is that you – that you know what to do in different styles and in different – I don't know, on different aspects and levels. And that is exactly what the vision is about".* – Rik van Stiphout *(on 2006)*

8.19.3 SWITCHER

"When I think of -for example- Peter Gero as one of the names that we had there, this really opened the door also to a certain extent. He was – or the city of Dubrovnik, or – in certain areas it opened the door to get into, ja as you say, these kind of inner circles, as Philips. And I think the pay off will be harvested in the coming years for this, if we continue that". – Nils Hansen *(on 2011 – 2013)*

8.19.4 CRM / NETWORKS / WORKSHOP

"As it is a matter of relationship building, the local market that is hosting the event has a say in who they want to invite, with a clear description for, let's say, in the rules of the workshop, it says: you only invite architects, landscape architects and or urban planners or city responsibles that are dealing in this field. To avoid that we get kind of a low level, low involved audience. So far it worked out pretty ok, the final choice is, I said, based on the network that is existing in the markets, if there is no network existing for the local market it is really difficult to get good people on board –we experience that also. So, -- […] Let's say for example, the workshop in Copenhagen although it was very good visited and in the end also the audience was really good – it took the local organisation a big effort to get the people on board, because they – everyone is always convinced or turn out ((…)) - that organisation was super convinced: Ja, no problem, we have a very good access to the target group. And we in the end we had to deal with a lot of lighting designers as workshop participants which is not the main objective, because they don't learn anything there, because they know everything about lighting design". – Nils Hansen *(on 2011 – 2013)*

8.19.5 BARTER

"I mean the fact that these - ja, because the program is well done and it's - well in some parts there was a little bit product information that all of a sudden appeared, but I think that we managed still to really keep away from product information and product presenting – presentations. I think that is a good thing, because people are - well, some people are actually looking for product information, and they want to get it fast, but that is another thing. But generally, I think people respect the fact that we contribute to research, that we…. that we are involved in this and interested in, what is really going on in cities. I think it creates a certain respect for the company. ***...[OMISSIS]...*** *(should be Philips has) that reputation already but* ***...[OMISSIS]...****(it) need to keep it. Philips had a very good reputation about in general knowledge on lighting, and knowledge on many topics related to light. I think for example, lighting would be the health effects. If you would, I mean if you would say: where do you find these information? A person would very probably say: Well, maybe at Philips. And that is a great thing that you – that they have the impression that there is a lot of knowledge. I think that is a good thing".* – Jasmine van der Pol *(on general approach)*

8.19.6 BARTER / WORKSHOP

"Not just exploiting the customer, but to also giving him something to take away. So, I can invite people to a workshop, I can throw them a pile of products: and now play with it, and this is the objective, go for it. Then I could listen to the people, but on one hand I have no connection to their brain at that point, to a certain extent. And secondly for them, or for the customer in these kind of events, it is just a setting where the country listens, or the sales organisations listens and he himself does not rally have something to take away. So, the reason why we extended that, why put it on that broad level and also took one and a half days for it, is really to create not only an added value for Philips but also an added value for the people visiting these events. I said, it is a collaborative platform and that means taking and giving. And we think still that the city.people.light research in all it's three stages by now, is absolutely valuable content for this target group, and therefore very important also for us to maintain". Nils Hansen *(on 2011 – 2013 and barter)*

8.19.7 BARTER

"…They need to have kind of an area, where they feel secure and so that was one of the reasons why we wanted to have it seamlessly, so in the end the first half of the workshop is the takeaway for our audience, and the second half is our takeaway, if you can - you could cluster it like that. […] Exactly. For the audience it is – the audience has also a lot of fun obviously in the second part and for them it is something new – for us it is daily business, but for us – it is their value to listen, so that is our takeaway". – Nils Hansen *(on 2011 – 2013 barter)*

8.19.8 PROGRAMMER

"That's what I meant. The thing is that I am not involved with Philips Lighting in that// […] //for a number of years. But that's what I saw, and I think that was for me one of the biggest influences with city.people.light, was to introduce the businesses to this approach of engaging with multiple stakeholders, and getting feedback loops going. How much it has actually influenced technologically, I really cannot say. But, I have – I have

been involved in the kind of workshop but what they have done with it, I have not been involved in. But that is me and my perception of – because either, they did not do that before, it is kind of a Design Thinking approaches - it's a thought process. And that for me was the biggest influence. Less the content, more the approach". – Lorna Goulden *(on 2006 and on the approach in general)*

In general terms, within this city.people.light networking "switching game", "design", both as a general multidisciplinary approach (Design Thinking) as well as a Philips specific organizational agent apparently played a leading role, hence acting itself as a "switcher" and "programmer" at the same time:

8.19.9 SWITCHER / BARTER / WORKSHOP

"Exactly. It is really opening a door for us// […] //into these networks of architects and urban planning. So, this is really the key. Both - it also, let's say, the program as we set it up has another dimension that is more the lighting design discipline, which we have not tackled so far, but also there it helps the local organisations at least on a small scale - but still to connect with their key accounts in lighting design to make them part of this program, because the workshop actually offers a platform, where not only the manufacturer Philips can connect to architects and urban planners, but also some kind of service partners like the lighting designers can connect to those guys. For them it is also a platform that they can use to, ja, show their discipline and show their function and talk about the added value that they can add to the approach". – Nils Hansen

APPENDIX B

This Appendix B includes:

- Open Codes in their final selection form (underlined text selection)
- Clustering of Open Codes by semantic affinity
- Specification of Generative Subcategories.

The final underlined lines do represent Open Codes in their final form, being elaborated from the larger fragments of transitional text from Prefigured Coding to Open Coding, as identified in Appendix A.

APPENDIX B: CHAPTER 6
CODING: GENERATIVE SUBCATEGORIES
HISTORY AND CONTEXT OF CITY.PEOPLE.LIGHT: BOOK

GENERATIVE SUBCATEGORIES

Chapter 6: Generative Subcategories

Generative Subcategory 6.1:

6.1.1 INSIGHTS / INTERVIEWS (HISTORY)
6.1.6 INSIGHTS / VISUALIZATION / INTERVIEWS (HISTORY)
6.11.5 INSIGHTS / TECHNOLOGY / DESIGN (HISTORY)

6.1.1 INSIGHTS / INTERVIEWS (HISTORY)

"… the idea was to create on the basis of the insight… to create some visualization… how this insight was inspiring the propositions and new opportunities. …". – SM

6.1.6 INSIGHTS / VISUALIZATION / INTERVIEWS (HISTORY)

"… the activity of interviewing and liberating an insight that otherwise would have been remained hidden". – Stefano Marzano *(on the general city.people.light approach)*

6.11.5 INSIGHTS / TECHNOLOGY / DESIGN (HISTORY)

"…by actually liberating an insight about also the new challenges of the city, by capturing also an insight of the architect that where actually thinking of, dreaming about, new visions and new solutions -- what actually we did visualize were concepts and solutions that were challenging the current status of technology, and therefore pushing for new questions in terms of new technology …Design was taking a leadership in showing that there were available insights - we had new insights, or anyway insights that were giving the opportunity to create solutions that were not available before… these ideas were challenging the existing technology… creative push to develop new technology roadmaps" – SM

Generative Subcategory 6.2:

6.1.2 BRAND THEME / MULTIPURPOSE (HISTORY)

6.1.13 BRAND THEME / NOT LEVERAGED (HISTORY)
6.3.3 BRAND THEME / ARCHITECTS' APPROACH (HISTORY)
6.13.2 BRAND THEME / STORYTELLING (HISTORY)

6.1.2 BRAND THEME / MULTIPURPOSE (HISTORY)

"… multi-purpose-strategy... The multiple purposes being innovating on the one hand and making ourselves visible through PR on the other hand…. there were these two converging lines and it all started with the issue that there was an image gap, like Philips was doing a lot of innovation but it was not visible to …we were doing all this innovation but it was not being recognized and seen…". – LT

6.1.13 BRAND THEME / NOT LEVERAGED (HISTORY)

"… unexploited – not completely – but it is unexploited on a real organizational […] levels..". – NH

6.3.3 BRAND THEME / ARCHITECTS' APPROACH (HISTORY)

"… it's become this brand for the "Architect Approach" and the name of an award and everything…". – LT

6.13.2 BRAND THEME / STORYTELLING (HISTORY)

"… it can be a very strong element of a - for a company to position in this world of today– where it is so saturated by so many different things… storytelling". – OP

Generative Subcategory 6.3:

6.1.3 DESIGN / INSIGHTS / THOUGHT LEADERSHIP (HISTORY)
6.1.18 DESIGN / THOUGHT LEADERSHIP (HISTORY)
6.4.1 DESIGN / EDUCATIONAL (CONTEXT)
6.4.3 DESIGN / BOOK / EDUCATIONAL (HISTORY)
6.6.5 DESIGN / BOOK / ROADMAP (HISTORY)
6.6.10 DESIGN / ARCHITECTS' APPROACH / MARKETING (CONTEXT)
6.7.6 DESIGN / TECHNOLOGY / HORIZON 1 (HISTORY)
6.9.4 DESIGN / STRUCTURE (CONTEXT)
6.11.2 DESIGN / DESIGN THINKING / CO-CREATION (CONTEXT)
6.11.7 DESIGN / TRAINED JUDGEMENT / GENIUS FORECASTING (HISTORY)
6.13.4 DESIGN / THOUGHT LEADERSHIP / BRAND THEME (HISTORY)
6.14.1 DESIGN / MOCK UP / NOT LEVERAGED (HISTORY)
6.19.8 DESIGN / SWITCHER / TRUST (HISTORY)

6.1.3 DESIGN / INSIGHTS / THOUGHT LEADERSHIP (HISTORY)

"… I am an industrial designer, so we were looking very much at the market and in general at trends. So, that part was very familiar to me, like looking at, in general, trends in the society – industrial design was very much about focusing on that, and understanding it, and building upon it…[…]…changes in the city, and about how to get a grip on these challenges just by looking into futures and studying that – and get those insights". – JP

6.1.18 DESIGN / THOUGHT LEADERSHIP (HISTORY)

"…for Philips Design it was a success…[…]… And the second the engagement proofs that it was highly appreciated and that Philips Design was definitely recognized as a thought-leader …[…]… in the lighting industry and light design, design organisation, as actually we were moving from -- from only the out of the boundaries of the traditional product design and we were entering in a new higher level of design activity that was very much intimate with architecture, urban planning and [project?] and an ambient experiential solution". – SM

6.4.1 EDUCATIONAL (CONTEXT)

"… Not only design process, it also has an educational influence…". – DS

6.4.3 DESIGN / BOOK / EDUCATIONAL (HISTORY)

"I think the books are great. The first book … why don't we get the students involved? …I mean I run a minor in lighting design, in Amsterdam, six months full time curriculum to do just lighting design - and I see my students being so hungry, you know, for knowledge, for – for this connection, with their idols, with their – or just with professional designers…". – Rogier van der Heide

6.6.5 DESIGN / BOOK / ROADMAP (HISTORY)

"Philips is actually the supplier of the light source, of every disc that makes up the façade [of the Opera Department Store in Seoul, 2003]…[…]…it has been designed and developed by me and [Hollands Licht] my team […]://it was a conceptual thought…[…]… it was indeed foresighted by city.people.light. There were these ideas, you know, also in the book by the way". – RH

6.6.10 DESIGN / ARCHITECTS' APPROACH / MARKETING (CONTEXT)

"…in Poland we define creative specifiers mainly as architects. Architects ***~~[OMISSIS]~~*** *owning or working for big architectural studios. For dealing with designs and projects of big stuff mainly, big buildings, roads –* ***~~[OMISSIS]~~*** *– my program does not approach the interior architects, who are dealing mainly with interior design of houses, so this is not the target group.* […] *…this target group becomes more and more important on the market* […] *…to develop a program and develop certain activities towards architects and specifiers.* – DS

6.7.6 DESIGN / TECHNOLOGY / HORIZON 1 (HISTORY)

"But it is the specifier, the designer, me, really driving with the respective manufacturers. …[…]… it did not do anything that was not done before, it was a very smart combination of existing technologies into something new. And I also believe, that is really what innovation is nowadays. It is not always finding the new fundamental technology. Innovation is really also sort of rethinking the configuration of technology". – RH

6.9.4 DESIGN / STRUCTURE (CONTEXT)

"…I think it gives a framework, also. It's not about the sky is the limit, or it's about creating science fiction, but it gives you a framework – this is the framework, and this is the boundaries…[…]… And as a designer we need boundaries. … in design, for me the biggest mistake is, when they tell us: do whatever you want. For me it is the worst thing that someone can tell you to a designer". – OP

6.11.2 DESIGN / DESIGN THINKING / CO-CREATION (CONTEXT)

"…Design Thinking, it's a way of thinking, it's a way of thinking about doing creativity. … it's about iterative, it's about collaborative, and it's about being creative… --" – LG

6.11.7 DESIGN / TRAINED JUDGEMENT / GENIUS FORECASTING (HISTORY)

"…what I see with people who are non-designers is they need an awful lot of facilitating to get the ideas out. … And I think this ideation is a bit like that – so it is kind of a trained muscle for some of these designers […] If you are doing it with non-designers then you really have to plan it very, very carefully […] And then in that way it is a lot more intuitive and easy to just sit with a group of experienced or new designers […] // but that is a bit a controversial view of Design Thinking …". – LT

6.13.4 DESIGN / THOUGHT LEADERSHIP / BRAND THEME (HISTORY)

"…set an intellectual leadership of Philips Design, in addressing themes related to light and city and quality of life, of people in the city and how eventually light could be a very relevant and strategic instrument for cities to brand themselves and to differentiate themselves…". – SM

6.14.1 DESIGN / MOCK UP / NOT LEVERAGED (HISTORY)

"…in the 'far future zone' we had created this light furniture …some of the architects did not like that, because they sort of: this is Philips doing design - you know, Philips should make the light components for me, and I will put it underneath my own chair. I don't want Philips making my decisions". – Laura Taylor *(on 1996)*

6.19.8 DESIGN / SWITCHER / TRUST (HISTORY)

"… we looked at the second in charge, the younger architects, they were looking to make the difference. And they were much more open to discuss lighting and technologies, and open to the industry than the traditional architects, so to say, the seniors … […] There were a lot young architects who were working on urban furniture, smaller projects but with high impact on the social community in the city, but they were – but the architects they were looking at the master plan and the big – that was really – master planning was the big thing, well that is not a big thing anymore, because we know that communities are developing at a certain moment, and you cannot take the full responsibility, you need to understand the dynamics and the social dynamics as well. … we focused on these people first, that were more interested in design as well, because architects are not really interested in design. They have a strong opinion about design, because they see it as something from the industry. … So before he trusts you – and that is also with architects you need to take some time to build a relationship…". – JS

Generative Subcategory 6.4:

6.1.4 CROSSROADS DESIGN VS. RESEARCH (CONTEXT)
6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY)

6.1.4 CROSSROADS DESIGN VS. RESEARCH (CONTEXT)

"…a number of programs that actually run at the crossroads of design and research. …they do take into account actually the information out of city.people.light".– RH

6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY)

"…in those days it was even more clear between the functions, what Design did, what … Design did that kind of strategic marketing role in those days. ….the participants were all designers, and then in the 2006 workshop, the participants were not…". – LT

Generative Subcategory 6.5:

6.1.5 THOUGHT LEADERSHIP / URBAN CHALLENGES (HISTORY)
6.1.17 THOUGHT LEADERSHIP / BRAND THEME (HISTORY)
6.1.19 THOUGHT LEADERSHIP / LEGACY (CONTEXT)

6.1.5 THOUGHT LEADERSHIP / URBAN CHALLENGES (HISTORY)

"…thought-leadership project. On a project that was investigating, and researching about critical challenges in the …" – SM

6.1.17 THOUGHT LEADERSHIP / BRAND THEME (HISTORY)

"… thought-leadership was definitely created and was given a form and the attitude towards Philips was positive…". – SM

6.1.19 THOUGHT LEADERSHIP / LEGACY (CONTEXT)

"… in a relationship, in a future relationship, perhaps, and to call that thought leadership… I think a lot about thought-leadership these days…. And the thought-leadership that we try to claim now in the market, that only works if it is authentic, if we really – if it is really self-generated…. It is not something that you, just buy//" – RH

Generative Subcategory 6.6:

6.1.7 DESIGNER / VISUALIZATION (CONTEXT)
6.17.1 DESIGNER / INTERVIEW / INSIGHTS CO-CREATION (HISTORY)

6.1.7 DESIGNER / VISUALIZATION (CONTEXT)

"… LIAS team, and our sales guys could be… are inspired by it.... They are inspired when they see the documentations, films, photography… – it does not matter if they are doing this on their own or if they are working with an external designer…". – DS

6.17.1 DESIGNER / INTERVIEW / INSIGHTS / CO-CREATION (INSIGHTS)

"…it was the, the interview was generating or was liberating insights off the mayor and the architect and that was used at the centre of the workshop to inspire the designers working on a concept.... So this is co-create more, let's say, a virtual co-creative activity that has happened in the same spot and in the same place… virtual co-creative activity in the sense that people are not together and also a bit deluded in time [laughs] and not centralized in one … research, insight, transfer of the insight, into a process of representation of concept…". – SM

Generative Subcategory 6.7:

6.1.8 ROADMAP / INNOVATION LOOP / DESIGNER (CONTEXT) (Functional)
6.2.2 ROADMAP / NOT LEVERAGED (HISTORY)
6.13.5 ROADMAP / THOUGHT LEADERSHIP / STORYTELLING (HISTORY)

6.1.8 ROADMAP / INNOVATION LOOP / DESIGNER (CONTEXT)

"…you know, our products are not favoured by all designers, and that is also not necessary, but we can be favoured by more designers, stakeholders, if we simply do more interesting products… the loop makes the product…". – RH

6.2.2 ROADMAP / NOT LEVERAGED (HISTORY)

"… it can also hurt us because people ask and people expect. … You know, you told us, in two years, you (…) us – the result of it, and how – and we don't have anything to show…". – OP

6.13.5 ROADMAP / THOUGHT LEADERSHIP / STORYTELLING (HISTORY)

"…but it is also a roadmap… Nobody ever could have imagined that, so it is accelerating also the imagination, even the most technical people. So, that was one... What this first city.people.light, this first part has done on thought leadership is the storytelling… That was a paradigm change". – JS

Generative Subcategory 6.8:

6.1.9 VISUALIZATION / OWN COPYRIGHT (CONTEXT) (Functional)

6.1.9 VISUALIZATION / OWN COPYRIGHT (CONTEXT)

"… visual content.... So, actually it helped because it was own copyright imagery as well to …". – Lorna Goulden

Generative Subcategory 6.9:

6.1.10 INNOVATION / UNIQUENESS (HISTORY) (Monitoring)
6.1.12 INNOVATION (CONTEXT) (Reflexive)

6.1.10 INNOVATION / UNIQUENESS (HISTORY)

"… I had that legacy from my processor about the city.people.light... The first ever kind of approach for a range with a lot of accessories, with a really, a clear understanding of the new needs, they are not functional needs only... And that was the first approach… –" – Fernand Pereira (on 1996 follow up)

6.1.12 INNOVATION (CONTEXT)

"…it is almost like you are always a few steps ahead …[…] It is a natural condition of innovation. If you think about it, you are proposing something that people haven't experienced and if they don't fully get it, it takes a while, it takes a while…". – LG

Generative Subcategory 6.10:

6.1.11 ARCHITECTS' APPROACH / MULTIPURPOSE (HISTORY) (Monitoring)
6.2.6 ARCHITECTS' APPROACH / NOT LEVERAGED (HISTORY)

6.1.11 ARCHITECTS' APPROACH / MULTIPURPOSE (HISTORY)

"…when you look at the ideas, at the innovation track but on the PR track …[…]… I know that they were busy establishing the city.people.light as a kind of brand on its own for the 'Architects Approach'... – LT

6.2.6 ARCHITECTS' APPROACH / NOT LEVERAGED (HISTORY)

"… connect, let's say, with some of the people that kind of - mostly architects, urban planners and so on…[…] …it was a big value – kind of tap into their thinking, their ideas, their desires and some other …[…]… I did not see there is really, how do you call it - impact.[…] - or direct impact, which maybe is not so easy to say it, to the business…[…]… That's a limit of the company. There is nothing wrong with the approach, it is still sound, valid approach. The company, the people also, it's about people at the end. It is not that… " – OP

Generative Subcategory 6.11:

6.1.15 BOOK (HISTORY)
6.1.16 BOOK / DISTRIBUTION (HISTORY)
6.4.2 BOOK / EDUCATIONAL (HISTORY)
6.6.6 BOOK (CONTEXT)
6.6.7 BOOK (CONTEXT)
6.10.1 BOOK / NORMATIVE (HISTORY)
6.12.1 BOOK (HISTORY)
6.12.2 BOOK / DISTRIBUTION (HISTORY)
6.12.4 BOOK / SKETCHES (CONTEXT)
6.15.2 BOOK / WORKSHOP / DESIGN (CONTEXT)

6.1.15 BOOK (HISTORY)

"…the relevant knowledge is captured in the book… the highest level of usable knowledge was in the -- in the book. And of course the book was the synthesis of what actually was collected…". – SM

6.1.16 BOOK / DISTRIBUTION (HISTORY)

"The book was on everybody's shelf I think…" – LT

6.4.2 BOOK / EDUCATIONAL (HISTORY)

"… I studied the city.people.light approach, where it – was it 2000? – When was the first? '96? […] I already studied that book in depth when I was doing my studies… I remember that I already studied that first publication and see whether there were new ideas and if there were already people dealing with these kind of issues". – JP

6.6.6 BOOK (CONTEXT)

"… I know that we referenced the books for the development of what we were doing in Eindhoven, … very inspirational, but the articulation of the thinking was way too abstract…". – LG

6.6.7 BOOK (CONTEXT)

"…continuity is more conceptual …we actually tried to make continuity. …content [NOTE: of the city.people.light 2007 "White Book"] *was so abstract… it was a little bit of a struggle …a false fit… … influential You know, from a creative process, you can never – […] – specify… […] …There are many, many resources that were inspirational, many… the connection with city.people.light is that: look, is matching with the future visions that have been generated by experts in the field"* – LG

6.10.1 BOOK / NORMATIVE (HISTORY)

"… when you first read the book, you know, you clearly understand the – that there was a vision already at that time… and the book ...So it was a clear milestone, it was really the start of something new in terms of urban lighting strategies, in a way. …So everything was solid in a way, and then starting something new - out of the blue with no connection would be a strategic mistake…" – FP

6.12.1 BOOK (HISTORY)

"…there is the book if we associate your project as related somehow. But the – besides the book there is not an intranet resource for example, within Philips Design". – LG

6.12.2 BOOK / DISTRIBUTION (HISTORY)

"…I came across the books. But they where actually noticeably very difficult to get hold of […] No, the first book [1997] *was very difficult to get hold of, nearly impossible. The second book* [2007], *the white book, was easier to get hold of. […]I think that's why the dissemination of the information did not really spread".* – LG

6.12.4 BOOK / SKETCHES (CONTEXT)

"… I do have the white book, so I can see the sketches from there. […]…I received the book, I received the presentation, I also received a lot of PowerPoints…". – DS *(on Philips Lighting Poland SA)*

6.15.2 BOOK / WORKSHOP / DESIGN (CONTEXT)

"I have seen the connection to the book and to the "Create the Livable City" (2011 – 2013) – *to city.people.light concept and* "Create the Livable City", *because at those workshops people had a chance to design the space in a certain format … – it was not just about lighting design it was about creation of a certain concept of the urban space that should tell a certain story…"* DS

Generative Subcategory 6.12:

6.1.20 CRM / COMMUNITY (HISTORY)
6.16.2 CRM / TRUST (CONTEXT)
6.16.4 CRM / SALES / DESIGN (CONTEXT)

6.1.20 CRM / COMMUNITY (HISTORY)

"… There was a growing community, really going to Philips events to know what the latest trends, and the whole lecture program, so that is thought leadership recognition, and the media. …[…]… And the relationship that Philips was recognized of being really a partner in outdoor lighting, specifically…". – JS

6.16.2 TRUST / CRM (CONTEXT)

"… build on trust… I think the true benefit for Philips is that it can build a relationship of trust, as long as Philips gets enough credit…". – RH

6.16.4 CRM / SALES / DESIGN (CONTEXT)

"…We also had our sales colleagues present at the entire program, at the workshops, and their job basically was to support the teams in design phases and inspire them, that's all. […] Not to sell". – DS

Generative Subcategory 6.13:

6.1.21 COMMUNITIES (HISTORY)
6.16.3 COMMUNITY / MULTIDISCIPLINARY (CONTEXT)
6.16.5 COMMUNITY / SOCIAL MEDIA (CONTEXT)
6.19.6 COMMUNITIES / SWITCHER (CONTEXT)

6.1.21 COMMUNITIES (HISTORY)

"… creating a platform where other communities could gather and take new initiatives and ask Philips to join… […]… you facilitate, you facilitate processes more and more by organizing conferences or with participating conferences… give them a platform… –" – JS

6.16.3 COMMUNITY / MULTIDISCIPLINARY (CONTEXT)

"…it is not about building communities… about crossing the boundaries between disciplines… it would be great if city.people.light is the platform where the urbanist also

finds the, you know, the landscape designer, or even the scientists, or the, you know, the behavioural psychologist – and the – the academics…" – Rogier van der Heide

6.16.5 COMMUNITY / SOCIAL MEDIA (CONTEXT)

"…so this is already some sort of community… […] …we did not do anything on social media, because our architects are not very active there". – DS

6.19.6 COMMUNITIES / SWITCHER (CONTEXT)

"…but these networks they are all interconnected – if we manage to build that new network with people representing these existing communities, it means that we are connected to these existing communities… […]". – RH

Generative Subcategory 6.14:

6.2.1 BUDGET MANAGEMENT (HISTORY)
6.5.1 BUDGET MANAGEMENT (CONTEXT)
6.5.2 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)
6.5.3 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)
6.5.4 BUDGET MANAGEMENT (HISTORY)
6.5.5 BUDGET OWNERSHIP (HISTORY)

6.2.1 BUDGET MANAGEMENT (HISTORY)

"…it's been some overbudget …". – LT *(on 1996)*

6.5.1 BUDGET MANAGEMENT (CONTEXT)

"I think it is very hard to fit that in a corporate financial approach… I think that's an approach, which is not necessarily compatible with the every day business of selling lights". – RH

6.5.2 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)

"… the ownership has always been with Philips Lighting, clearly …It has always been a Philips Lighting program… we outsourced part of that execution to Philips Design in 2008". – FP

6.5.3 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)

"In Philips Lighting […] …there was budget, the interesting thing is, those days, it was not such a centralized budget, but decentralized budget – so, people could be more entrepreneurial around this factory and take risk and – […] From the factory. Later, some money was coming from Eindhoven, Corporate Lighting…". – JS

6.5.4 BUDGET MANAGEMENT (HISTORY)

"… we weren't so bothered about budgets and that kind of thing". – LT *(on 1996)*

6.5.5 BUDGET OWNERSHIP (HISTORY)

*"… it was an absolute initiative from my side… […] **...**it was an internal -- in was an internal investment of Philips Design".* – Stefano Marzano *(on 1996)*

Generative Subcategory 6.15:

6.2.3 NPS / THOUGHT LEADERSHIP (HISTORY)
6.2.4 NPS (CONTEXT)

6.2.3 NPS / THOUGHT LEADERSHIP (HISTORY)

"… Net Promoter Score… to create a certain leadership there and to be leading in urban lighting, recognised as a leader in urban lighting, in five years time… –" – JS

6.2.4 NPS (CONTEXT)

"We do the NPS, Net Promoter Score questionnaire… how likely would you recommend Philips to your business partner or colleague? …the NPS, the Promoter Score and the satisfaction of customer from workshop itself…". – DS

Generative Subcategory 6.16:

6.2.5 EDUCATIONAL / NOT LEVERAGED (CONTEXT)
6.4.4 EDUCATIONAL (CONTEXT)
6.4.5 EDUCATIONAL (CONTEXT)

6.2.5 EDUCATIONAL / NOT LEVERAGED (CONTEXT)

"…we did not do any education… testing of how much they have learned ". – DS

6.4.4 EDUCATIONAL (CONTEXT)

"I think definitely yes, because we have a trained – on those workshops we have trained over 200 architects of 100 studios, architectural studios, the biggest ones in Poland, basically…". – DS

6.4.5 EDUCATIONAL (CONTEXT)

"…technical knowledge …to teach people how to do it, how to the lighting design properly also". – DS

Generative Subcategory 6.17:

6.3.1 UNIQUENESS / CRM / ROADMAP (CONTEXT)
6.3.2 UNIQUENESS (CONTEXT)
6.3.4 UNIQUENESS / LEADERSHIP (HISTORY)
6.3.5 UNIQUENESS (CONTEXT)

6.3.1 UNIQUENESS / CRM / ROADMAP (CONTEXT)

"… I don't think there is anything else… a way to build these relationships it is too simple. City.people.light is a way to improve our portfolio which will then improve the relationships…" – RH

6.3.2 UNIQUENESS (CONTEXT)

"…the approach is unique…". – DS

6.3.4 UNIQUENESS / LEADERSHIP (HISTORY)

"…probably we were the first one in '98…" – FP

6.3.5 UNIQUENESS (CONTEXT)

"… the other ones that do exist are much more sort of student driven" – TR

Generative Subcategory 6.18:

6.6.1 MARKETING OWNERSHIP / ROADMAP (HISTORY)
6.7.7 STRATEGIC MARKETING / DESIGN / HORIZON 2 / 3 (HISTORY)
6.19.10 MARKETING / SWITCHER (CONTEXT)
6.13.3 MARKETING / COMMUNICATION / MULTIPURPOSE (HISTORY)

6.6.1 MARKETING OWNERSHIP / ROADMAP (HISTORY)

"…Strategic Marketing…[…]… owned and managed an innovation funnel". – LT

6.7.7 MARKETING / DESIGN / HORIZON 2 / 3 (HISTORY)

"…I think 2004 to '08 or '09, something like that period, then, we had a function called Strategic Marketing in the business. […] And there I had a colleague, strategic marketeer and he was always complimenting Design about this body of work, both city.people.light books…[…]… that was where an Horizon 2 activity was done here and the rest of it was more remained Horizon 3 options for the future…" – LT

6.13.3 MARKETING / COMMUNICATION / MULTIPURPOSE (HISTORY)

"… utilizing the power of the media to further distribute and communicate about this concept…" – SM

6.19.10 MARKETING / SWITCHER (CONTEXT)

"…we had a contact with a good top architectural studios… […]…enter at the beginning phase through those architects…". – DS

Generative Subcategory 6.19:

6.6.2 NOT LEVERAGED (CONTEXT)
6.6.3 NOT LEVERAGED (CONTEXT)
6.6.9 NOT LEVERAGED / NETWORKS (CONTEXT)

6.1.14 NOT LEVERAGED / REFLEXIVE (CONTEXT) (Reflexive)

6.6.2 NOT LEVERAGED (CONTEXT)

"…We referenced it with a desire to create continuity, but it was a little bit of a struggle, it was a little bit of a false fit… So, it is certainly influential, but then - and this is the thing I find difficult, when people want to try to track back and say: where did that come from? …I think the connection with city.people.light is that: look, is matching with the future visions that have been generated by experts in the field". – LG

6.6.3 NOT LEVERAGED (CONTEXT)

"I wish city.people.light is more pragmatic and more about real projects... […] //it's actually, you would see in an ideal road-map that city.people.light becomes an actionable tool – it is now an non-actionable approach…" – RH

6.6.9 NOT LEVERAGED / NETWORKS (CONTEXT)

"…if you look to the city.people.light network and the people on the particular content. Again it is very theoretical and very abstract…[…]…it was just completely not practical to suddenly start trying to contact a vague abstract network". LG

6.1.14 NOT LEVERAGED / REFLEXIVE (CONTEXT)

"….people.light could be a trigger to kind of rethink some of the big, you know strategic steps. […] I don't think it is happening at the moment…". – RH

Generative Subcategory 6.20:

6.6.4 CHAMPION (HISTORY)

6.6.4 CHAMPION (HISTORY)

"A champion, I mean those things cannot – most unfortunate – they can die – they don't get the real momentum.... But you know, unless you really have a champion that says, ok, for 10 years I want to do this, because I want to achieve this, and in the first 5 years I want to plan in the scene, and with this city I want to do this – then it just becomes a nice kind of…". – Oscar Pena

Generative Subcategory 6.21:

6.6.8 HORIZON 2 (CONTEXT)
6.7.1 HORIZON 2 / FUNCTIONAL / ROADMAP (CONTEXT)

6.6.8 HORIZON 2 (CONTEXT)

"…when you obviously think ahead in the future of lighting, you, it is difficult to separate it from other things that happen in the city space…". – LG *(on 2007, applied to 2008 Strijp Masterplan)*

6.7.1 HORIZON 2 / FUNCTIONAL / ROADMAP (CONTEXT)

"…in a sense that it could also feed city.people.light, is our trends analysis department. Our group of people here that do VTA, visual trends analysis, and foresighting, they produce wonderful reports on all kinds of social trends and we could feed city.people.light with that, but we could also work in the other way…". – Rogier van der Heide *(on the general approach)*

Generative Subcategory 6.22:

6.7.2 HORIZON 3 / MONITORING / STRATEGY (CONTEXT)
6.7.4 HORIZON 3 / SCENARIOS (HISTORY)
6.7.5 HORIZON 3 / TECHNOLOGY (HISTORY)

6.7.2 HORIZON 3 / MONITORING / STRATEGY (CONTEXT)

"… – it is strategic information and strategic – a strategic way of creating that information – because it also serves another goal of just creating information… […] …City.people.light represents I think a more strategic view on our business. So, in that sense it – it's a constant challenge for us, to make that real…//" – RH

6.7.4 HORIZON 3 / SCENARIOS (HISTORY)

"… really like long-term future – long future – … there where a lot of scenarios which were long-term". – JP

6.7.5 HORIZON 3 / TECHNOLOGY (HISTORY)

… not necessarily fitting with the production processes of lighting at that time – I mean the future is another matter…" LT

Generative Subcategory 6.23:

6.7.3 SKETCHES / WILD CARD / HORIZON 3 (HISTORY)
6.12.3 SKETCHES / CONCEPT / NOT LEVERAGED (CONTEXT)
6.14.2 SKETCHES / MOCK UP / PROCESS / DESIGN (CONTEXT)
6.17.3 SKETCHES / CO-CREATION / DESIGNER (CONTEXT)

6.7.3 SKETCHES / WILD CARD / HORIZON 3 (HISTORY)

"...some of the sketches are more relevant now, some of the sketches are still valid, some of those sketches are maybe not valid because they used a completely different type of technology. So, I would say – I would say more the knowledge than really the actual execution and how you visualised it at that moment […] …Someone wants to pick one of those 'what if's' and then translate it and get it into the real machinery". – OP

6.12.3 SKETCHES / CONCEPT / NOT LEVERAGED (CONTEXT)

"… people who don't tend to conceptualize in pictures see that picture as the black and white, you know, the concept. …the people who think perhaps think more in words or in numbers, they see the picture and don't realize that it is actually communicating a conceptual, intellectual concept". – LG

6.14.2 SKETCHES / MOCK UP / PROCESS / DESIGN (CONTEXT)

"… Because the sketch is only a sketch, right? – They can think up anything, they can have brilliant ideas, they can have very extraordinary ideas, sometimes possible in their opinion, sometimes not, and... When they face later on the real – you know, how - they have to make it happen, it turns out sometimes that what they have created is not feasible to realize, right?...[…]…And I think they can see, in real, you know, as this mock-up, how this lighting design project is arising actually… From the very beginning. From the sketch - from an idea via a sketch to a temporary mock-up that is physical and can reflect what they had in their mind…". – Dorota Slawinska *(on Architects of Light)*

6.17.3 SKETCHES / CO-CREATION / DESIGNER (CONTEXT)

"Can Philips be validated as a co-creator? … these people – these practitioners, they feel they own the sketch they make. […] …That's a natural attitude of designers, right? … that sketch would not have been made without that context and those people around them. It's a co-creative process…". – RH

Generative Subcategory 6.24:

6.8.1 MATRIX (HISTORY)
6.8.4 MATRIX / DESIGN (HISTORY)
6.8.5 MATRIX / BOOK / DESIGN (HISTORY)
6.8.6 MATRIX (HISTORY)
6.8.7 MATRIX / VISUALIZATION / WORKSHOP (HISTORY)
6.13.1 MATRIX / SCENARIO (HISTORY)

6.8.1 MATRIX (HISTORY)

"…and then the co-created matrix was - would have been delivered - they would have spent one or two days, really going deep into that and understanding what the architect said, and sort of digesting it all before they even began on the stories…[…]… the information would have been very carefully – […] -- processed and digested by the ones doing the sketches…". LT *(on 1996)*

6.8.4 MATRIX / DESIGN (HISTORY)

"[…] …in the matrix… with the 24 cells, and we packaged all the workshop results, so it was a kind of layer, so you have technology view on the matrix, the marketing view, and the LiAS view. […]… And then the lighting design.… We heavily used that matrix and those six columns as well. […] The sort of binding factor - keeping everything together". – LT (on 1996)

6.8.5 MATRIX / BOOK / DESIGN (HISTORY)

"… had those three overlapping matrixes, and then we had a design workshop to think about the exhibition and what should be in there – so, you were sort of designing for real, but also for an exhibition… if you had a sketch of an idea it was like: how do we actually going to put that in an exhibition, or how – what does it mean if it was a product? […] So, a lot of it came from the book in fact…" – LT *(on 1996)*

6.8.6 MATRIX (HISTORY)

"…you know, it [NOTE: the matrix] *is still kind of very valid today… […] // the matrix... […] I use it as a kind of reference… – I see it as a still very valid matrix".* – OP

6.8.7 MATRIX / VISUALIZATION / WORKSHOP (HISTORY)

"Sociocultural information. Actually, this workshop was lasting one week and I can remember the first two, three days it was cracking our brains to understand the socio – sociological context…[…]…it was more the role of lighting to illustrate that and to make a – to visualise in an attractive way so it inspire people for the next step, to come up with a solutions. […] Inspiring…" – JS

6.13.1 MATRIX / SCENARIO (HISTORY)

"… we were very focused in the scenario, this whole, the social – " – JS

Generative Subcategory 6.25:

6.8.2 STRUCTURE (HISTORY)

6.8.2 STRUCTURE (HISTORY)

"Not because it is in a structured, an established structure…. More like much more personal interest, curiosity of the people, the individuals that really – not 'cause we have a system, a management system that allows to trace back…". – Oscar Pena

Generative Subcategory 6.26:

6.8.3 WORKSHOP / TECHNOLOGY / ROADMAP (HISTORY)
6.16.1 WORKSHOP / MULTIDISCIPLINARY / BOOK (HISTORY)
6.17.2 WORKSHOP / CONTRIBUTION / CONCEPT (HISTORY)

6.8.3 WORKSHOP / TECHNOLOGY / ROADMAP (HISTORY)

"… using workshops... Then we ran a business workshop, so that was with the marketing people, so really looking at all the marketing trends… Lighting Design Application Centre it was. … we ran a workshop there …" – LT (on 1996)

6.16.1 WORKSHOP / MULTIDISCIPLINARY / BOOK (HISTORY)

"… we could have just picked things out of the city.people.light book and make them, but we wanted to do a much more – to connect with the people in the business and development, and do it all together, and that is why another purpose of the translating steps and the workshops…". – LT

6.17.2 WORKSHOP / CONTRIBUTION / CONCEPT (HISTORY)

"… workshops with our young talent and we created a number of concepts and impressions of the concept…". – SM

Generative Subcategory 6.27:

6.9.1 DESIGN LEADERSHIP / MATRIX / STRUCTURE (CONTEXT)
6.9.2 DESIGN LEADERSHIP / UNIQUENESS / INTERVIEWS (HISTORY)

6.9.1 DESIGN LEADERSHIP / MATRIX / STRUCTURE (CONTEXT)

"… You need the people approach first, so the sociocultural trend-analysis work upfront to understand – […] But it could be also a sociologist and a forward looking designer together to also structure the information into a triggering, inspiring way". – LT

6.9.2 DESIGN LEADERSHIP / UNIQUENESS / INTERVIEWS (HISTORY)

"…the first city.people.light it has been my invention … […]… I did not have any key-performance indicator to, lets say, at upfront-- because it was also first of a kind…[…]… it was really, lets say, like -- like a research project: I had a hypothesis…[…]…it was actually a learning by doing, so getting answers on the go and after the first response, positive response, of the mayor and the architect with which we executed the interview". – SM

Generative Subcategory 6.28:

6.9.3 SPIN OFF'S (HISTORY)

6.9.3 SPIN OFF'S (HISTORY)

"…we have done a few kind of spin-offs, trying to follow the methodology… we have done a few spin-offs… – we took maybe our own interpretation for different reasons". – OP

Generative Subcategory 6.29:

6.11.1 TECHNOLOGY (CONTEXT)
6.11.3 TECHNOLOGY (CONTEXT)
6.11.4 TECHNOLOGY / HORIZON 3 (HISTORY)

6.11.1 TECHNOLOGY (CONTEXT)

"… if they// […] //can go beyond the technology it is even better…?" – DS

6.11.3 TECHNOLOGY (CONTEXT)

"…// technology really is important, but it is actually only important as an enabler […] //… the proposition of city.people.light, which is to put it very simple: a better city for all. Is enabled, made possible, by technology. …don't forget the technology is for this kind of stakeholders very inspirational too". – RH

6.11.4 TECHNOLOGY / HORIZON 3 (HISTORY)

"… the whole technology thing. At that moment of the first one, the LED thing was not in

the horizon, it was there but it was not really there…". – OP *(on 1996)*

Generative Subcategory 6.30:

6.11.6 HIGH DESIGN / INSIGHT / TECHNOLOGY (HISTORY)
6.15.1 HIGH DESIGN / CREATIVE LEADERSHIP (HISTORY)

6.11.6 HIGH DESIGN / INSIGHT / TECHNOLOGY (HISTORY)

"… I think technology could be - could have a formal presence, sociology and also governance … […] … in that sense, of course it is Design Thinking. I mean if you define Design Thinking as how Tim Brown does it. I think city.people.light is a fine example …I mean High Design in the way Stefano cultivated it, was really about insight generation, you know, analysing that, doing experience flows and all that stuff and then creating a 360 degrees experience…". – RH

6.15.1 HIGH DESIGN / CREATIVE LEADERSHIP (HISTORY)

"…it was absolutely based on my thinking of the High Design and it was executed with this… […]... The spirit, the spirit was anyway exactly the one of the High Design, just elevating design from the role of master design execution - of the design of the product to more the role of the, lets say, the design of the architect as the creator of a plan. When I talk about 'the design of God', not because this is (…) but a higher level of the idea of design, of the plan that was typical also for the architect that it was "architectizing" – SM

Generative Subcategory 6.31:

6.11.8 DESIGN PROCESS / THOUGHT LEADERSHIP / MATRIX (HISTORY)
6.14.3 DESIGN PROCESS / DESIGN THINKING (HISTORY)

6.11.8 DESIGN PROCESS / THOUGHT LEADERSHIP / MATRIX (HISTORY)

"…it is for sure that if we would have a bunch of engineers, would never ever come up with these kind of even process, you know, because of the way they think and the way they immediately translate into product solutions, technology… […] …Exactly and that's now to the credit of Philips Design clearly… […] … is there value in using Philips Design at that time. And there was a clear value. First because there is the legacy, so that means that it is a continuation…[…] …with the city mapping, the matrix and all of that gave continuity…[…] …in Philips Lighting at that time for sure there was probably not anybody with the capabilities to go to make interviews to these guys, because they just don't speak the same language, they don't have the connections…[…]… Philips Design was our intellectual partner … […]… I am not sure what would qualify, you know, to say it is a design program or not, what I just can say is that in terms of understanding and mapping and structuring, you know, these mega trends and this kind of things…[…]…I think that design element in a way, if we call it design in that case, for sure, yes, it is then – in that case it would qualify for a design program, if that's the definition…" – FP

6.14.3 DESIGN PROCESS / DESIGN THINKING (HISTORY)

"… because if I look how I started at Philips Design and my role, I was really concerned

about the shape of things, the quality of the material of the products [laughs]… […] …so the whole role as a designer for me, let's say for me personally, has moved from being the creator, the expert, the craftsman and product design up to the facilitator in a very holistic environment to help people making choices". – JS

Generative Subcategory 6.32:

6.17.4 INNOVATION LOOP / MULTIDISCIPLINARY / CONTRIBUTION (CONTEXT)
6.19.3 INNOVATION LOOP / DESIGNER (CONTEXT)

6.17.4 INNOVATION LOOP / MULTIDISCIPLINARY / CONTRIBUTION (CONTEXT)

"Feedback loops in particular… by doing that and by interacting with people who are from different perspectives, that is one of the kind of approaches". – LG

6.19.3 INNOVATION LOOP / DESIGNER (CONTEXT)

"… closing the innovation loop. There is a loop, which is: proposition setting, product creation, deployment in a market and that is where it ends – and what we really want is of course, get the feedback from that market and put it back into that innovation process, in proposition setting or maybe in product improvement or whatever. But, when we are closing that loop then it becomes like a, you know, like wheel that starts turning faster and faster… – I think that city.people.light can play a role in there, our own lighting designers can play a role in there, you know, they are equally important…//" – RH

Generative Subcategory 6.33:

6.18.1 PARTICIPATION / WORKSHOPS / DESIGNER (CONTEXT)
6.18.2 PARTICIPATION / DESIGN (CONTEXT)
6.18.3 PARTICIPATION (CONTEXT)
6.19.2 PARTICIPATION / SWITCHER (CONTEXT)

6.18.1 PARTICIPATION / WORKSHOPS / DESIGNER (CONTEXT)

"… I don't think it is the right place to have citizens in…[…]… I don't think that the workshops are the place to do that. I think a lighting designer and the municipalities they should work on that... – JP

6.18.2 PARTICIPATION / DESIGN (CONTEXT)

"[…] Well, it is one of those sort of aged discussions within the interaction design: can you really ask users to be innovative or design the future? …don't take what they say literally, because there people tend - unless their completely bombarded all the time with different inspirations and creative thinking - they just solve their currently problem…[…]…if you involve people into a too abstract intellectual level, and it is not until you have something specific, that they can experience, then you get valuable interactions…". – LG

6.18.3 PARTICIPATION (CONTEXT)

"…And it would be interesting to see what kind of intellectual co-creation you would get

from the baker or the old woman walking the dog…". – LG

6.19.2 PARTICIPATION / SWITCHER (CONTEXT)

"… But my impression is, the biggest value is the network…[…]… the business development team together with architects, so that kind of mindset of interacting with end users, I think that has a influenced – […] -- Philips Lighting development…". – LG

Generative Subcategory 6.34:

6.19.1 SWITCHER (CONTEXT)
6.19.7 SWITCHING (CONTEXT)
6.19.9 SWITCHER / NOT LEVERAGED (CONTEXT)

6.19.1 SWITCHER (CONTEXT)

"…you have to get the right people in the room…". – LT

6.19.7 SWITCHING (CONTEXT)

"Through the network…[…] – there is a strong relation between what I tried to build, this network, this international network with acclaimed people in the field…". – RS

6.19.9 SWITCHER / NOT LEVERAGED (CONTEXT)

"The circles have not converted into networks, that's right… […]… I really think that trying to squeeze everything into a methodology - it is a bit of a anachronism now. […] I think we live in a very networked society – and we should harvest the benefit from that and not trying to be counter productive" – RH

Generative Subcategory 6.35:

6.19.4 BARTER (CONTEXT)
6.19.5 BARTER / DESIGN (HISTORY)

6.19.4 BARTER (CONTEXT)

"…The whole point is that the participants… […] … will only contribute in a really profound way, if they see a benefit for them. And it does not have to be a monetary benefit or anything// […] " – RH

6.19.5 BARTER / DESIGN (HISTORICAL)

"… Because I also studied industrial design in Eindhoven, on the Design Academy, not on the University. …had the kind of habit to be interested in new thinking. […] In future thinking. And not as a designer, because I am not, I did not evolve as a designer…. And of course one of my, maybe secret goals or aims, was to get involved once in this// […] //in this think-tank". – RS

APPENDIX B: CHAPTER 7
CODING: GENERATIVE SUBCATEGORIES
COMMUNICATION STRUCTURE OF CITY.PEOPLE.LIGHT: BOOK

Chapter 7: Generative Subcategories

Generative Subcategory 7.1:

7.1.1 BOOK
7.1.4 BOOK / WORKSHOP
7.1.5 BOOK / WORKSHOP
7.1.8 BOOK / NOT LEVERAGED
7.1.9 BOOK / OUTSIDE-IN / INTERVIEWS
7.2.1 BOOK / MULTIPURPOSE / OUTSIDE-IN
7.7.4 BOOK / FORECAST VALIDITY
7.12.1 BOOK DESIGN / SKETCHES
7.12.2 BOOK / DISTRIBUTION
7.12.3 BOOK / DISTRIBUTION

7.1.1 BOOK

"…we are not in the book business, it was not about making a book only, but it was just that that would lead to something else – and that we would revisit and keep it always alive, you know, and then of course maybe with different angles, maybe different workshops…[…]…views from key stakeholders into the program, always blend some more higher level intellectual analysis in a way to create some structure and to create some more in depth analysis of what has been discussed with these stakeholders". – FP

7.1.4 BOOK / WORKSHOP

"…-- A critical mass exactly, of content for this kind of book..". – NH

7.1.5 BOOK / WORKSHOP

"… what we saw in the workshops was really, ja, really promising. something that lasts… – this book will be deployed to the participants of those events for sure…". – NH

7.1.8 BOOK / NOT LEVERAGED

"None, none. Because for me it was more of the references... They probably hear from the book, I am making an assumption, and they did some findings and from those finding we can relate that, that was kind of how – how we came up to that". – OP

7.1.9 BOOK / OUTSIDE-IN / INTERVIEWS

"…the book is solid, you know, the research is solid, the intellectual is – so it is founded... And then also it was outside-in… it was really interviewing them, so thought leaders and also professionals that have a lot of experience as well in different parts of the world and them telling us, you know, what these big guys, these big architects, you know, were thinking the future will be and how they would connect with that…". – FP

7.2.1 BOOK / MULTIPURPOSE / OUTSIDE-IN

"City.people.light is what we call the umbrella approach for the last, you know – since '98, and probably for the next decade. So it's a program that has different columns, you know, pillars, and moments where we communicate or we do a certain activity, so it is a multi- indeed, multi—[…] -faceted in a way program. And one of these facets was that at a certain moment we took a snapshot of… and interviewed, you know, the architects, what they were thinking, leading also with these workshops to a book …". – FP

7.7.4 BOOK / FORECAST VALIDITY

"… I own the two of them [books], and if I am looking to the first one, I see things already realized, which in those days were only this comics sketch, and that's a proof of that this kind of research is really helping us…". – RS

7.12.1 BOOK DESIGN / SKETCHES

"… at the end it is like, we communicate to the outside world, I think, most of it. It is not like we kept on purpose, we excluded the 30 best concepts. No, we kept all the good ones, and probably the ones that did not land in the book where almost the same kind of concept as well and we just kept it …[…]… there is no kind of extra knowledge or really need to get to these original files just to find more information, otherwise we would not have done a good job". – FP

7.12.2 BOOK / DISTRIBUTION

"…probably it was like 10,000 books or, I don't know, I am not sure, but it is not like it is hundreds of thousands, so but it is not 100 neither. You know, it was a decent number of books…[…]…That's why there is scarcity – and we managed that because – […] Consciously…". – FP *(on 2007)*

7.12.3 BOOK / DISTRIBUTION

"… I think they wanted to keep it a bit exclusive, like a "hard to get" thing. Because also the book it was a really – there were not so many of them, and it was a bit exclusive – positioned as an exclusive thing and so there was of course a whole buzz around it… – […] To get that exclusiveness and that the picture of: it is really high end. … in 2011 actually. I thought it was far more accessible and – ja – it was more – it was offered like a way of thinking for people and tools that you could use …[…]… it was not easy to get the images… although they were very happy once they got it because it was a great tool… to help selling their ideas and products and solutions. …the sketches and – were just used like this and like that, which had nothing to do with the initial idea. [laughing]*…".* – JP

Generative Subcategory 7.2:

7.1.2 INSIGHTS / THOUGHT LEADERSHIP

7.1.2 INSIGHTS / THOUGHT LEADERSHIP

"…it generates a trend so to speak. You see a lot of things coming back… […] It is

insight generation. …based on these insights, we on a segment marketing level we try to generate propositions for the future…". – NH

Generative Subcategory 7.3:

7.1.3 SKETCHES / MOCK UP / DESIGNER
7.7.5 SKETCHES / HORIZON 2
7.7.8 SKETCHES / HORIZON 3
7.17.3 SKETCHES / CONTRIBUTION

7.1.3 SKETCHES / MOCK UP / DESIGNER:

"…mock-up is – I don't feel like they actual – you know what we made – I think the sketches are ok, because they just show sort of ideas. And they are important. …the sketches from city.people.light … I do think that the sketches are very important to see how actually the designers are thinking". – KB

7.7.5 SKETCHES / HORIZON 2

"… by looking at these sketches of disruptive ideas, I think you also get an understanding of what is beyond our horizon…". – RH

7.7.8 SKETCHES / HORIZON 3

"… – there were sketches we would have never come up with […] That was the real value"... FP

7.17.3 SKETCHES / CONTRIBUTION

"…it was not like, they were doing the sketches by themselves alone, it was always with someone... […]" FP

Generative Subcategory 7.4:

7.1.6 ROADMAP
7.2.2 ROADMAP / DEADLINES
7.2.3 ROADMAP / PR VISIBILITY
7.2.4 ROADMAP / INSIGHTS / NPS

7.1.6 ROADMAP

"… we had two projects in the roadmap, the official innovation roadmap, that were empty boxes called: city.people.light concept one, city.people.light concept two, city.people.light concept three. […]… Something would come out of that research…". – FP

7.2.2 ROADMAP / DEADLINES

"… the book has to be printed on time, ja, so, for that event. Because the event in Rotterdam [NOTE: in 2007], *the date was fixed quite in advanced. So there was no other choice but to meet the deadline. … the other KPI was also the number, as I said before, the number of projects that we land in some roadmaps".* – FP

7.2.3 ROADMAP / PR VISIBILITY

"what are the benefits and the return on these kind of investments. […]… first to put again Philips on the map…[…]…PR and visibility about the research and the outcome of that research…[…]… second was that we would have a new product roadmap…[…]… Key Performance Indicators where also that some programs, at least two or three ranges should be derived from that study, so it is not just an investment to make a book for the sake of making a book and having a nice story about the cities of the future, because we are not in selling books … […] …we needed to recreate that momentum that we are the leaders in the market". – FP

7.2.4 ROADMAP / INSIGHTS / NPS

"… the program is ultimately only successful when it also converts into real solutions, real installations, in the real life of real people… the workshop is great and it is actually phenomenal to get NPS scores that high…" – RH

Generative Subcategory 7.5:

7.1.7 CRM
7.16.1 CRM

7.1.7 CRM

"… this is a good mechanism to also translate into a customer value". – NH

7.16.1 CRM / BOOK

"The books, the content - the contest, the reports that we were receiving. Because we have been receiving the books …it was mentioned in the book. …see that Philips can be a consulting partner for them in the project and at the beginning of the project concept". – Dorota Slawinska *(on Architects of Light)*

Generative Subcategory 7.6:

7.1.10 MONITORING

7.1.10 MONITORING

"… it was also relevant I think as a – to learn, like the monitoring part and the reflection …" – JP

Generative Subcategory 7.7:

7.1.11 DESIGN / REFLEXIVE
7.7.3 DESIGN / ROADMAP / HORIZON
7.19.1 DESIGN / NETWORKS / FORECAST VALIDITY

7.1.11 DESIGN / REFLEXIVE

"…it helped prioritising as well… – it gives that validation… Philips Design thought about them, we thought about them, a lot of customers thought about them, you know. But it is like: Ok, so what? … And that helped, you know, to at least prioritize". – FP

7.7.3 DESIGN / ROADMAP / HORIZON 1

"… of all these ideas that came out of the book, we selected some that had the big – that scored the best in terms of business potential…[…]… then we ask for different kind of resources and that's where Philips Design greatly contributed to that idea, in term of, you know, the design of the product and this kind of stuff….– at least we decided to go for that concept…" – Fernand Pereira *(on 2006)*

7.19.1 DESIGN / NETWORKS / FORECAST VALIDITY

"It would be worthwhile asking them actually what it is that they use every day. I mean, if you look at the professional association of lighting design…[…]… if you look at the pace of urban planning departments that can easily happen 10 years from now… What do we do in between? For this whole decade, are we in touch? Do we build the relationship? Do we get something out of it? Is that network being formed and solidified? - RH

Generative Subcategory 7.8:

7.1.12 REFLEXIVE

7.1.12 REFLEXIVE

"…I think it is something intuitive. I think it is more into – it allows some people in the company to listen and to learn…[…]…but it helps them developing them their own thoughts and their position…". – JP

Generative Subcategory 7.9:

7.3.1 BRAND THEME
7.6.1 BRAND THEME / INNOVATION LOOP / PR VISIBILITY

7.3.1 BRAND THEME

"I think it is a great branding theme*… […]… It is not so much about future trends, you see what I mean? It is not about – it is not so much focused on future".* – JP

7.6.1 BRAND THEME / INNOVATION LOOP / PR VISIBILITY

"… I am big fan of using all this stuff in our pragmatic every day operations […] …can we feed back into the innovation-loop? … can we make the impact of city.people.light bigger outside Philips? … publicize…". – RH

Generative Subcategory 7.10:

7.3.2 UNIQUENESS / ARCHITECTS' APPROACH
7.15.1 UNIQUENESS / CREATIVE LEADERSHIP

7.3.2 UNIQUENESS / ARCHITECTS' APPROACH

'… One, for sure the need to increase the approach towards this target group of urban planners and architects…. Secondly, we were still unique with the city.people.light research, so it was something that really helps us also to create a valid image towards this target group. And thirdly for sure also the markets needed to have some kind of platform to interact with this target group…". – NH

7.15.1 UNIQUENESS / CREATIVE LEADERSHIP

"…You can even do all those concepts – anybody can say, this is a great idea, thanks Philips and then we gonna make it, and actually some did even …. […] Competitors told me. Ja, Thanks for the book. Because we really now have done something. That's – but that is leadership, I mean, ja. Then you are copied, fine, but the original and the history, and that is why it is used now like kind of a sub-brand…". – FP

Generative Subcategory 7.11:

7.4.1 MATRIX / ACADEMIC KNOWLEDGE
7.8.1 MATRIX

7.4.1 MATRIX / ACADEMIC KNOWLEDGE

"…the matrix has helped us - and this kind of a structured analytical semi-academic way to - to approach the project from the outside is very interesting to us…". – TR

7.8.1 MATRIX

"… need to have the right tools for it, so the matrix was the way to do it, and we also use the matrix now for this road-map// […] //to keep on track, and to keep the process up going and also evolving". – RS

Generative Subcategory 7.12:

7.4.2 EDUCATIONAL

7.4.2 EDUCATIONAL

"… not educate, but to show the possibilities of lighting to architect and urban planners…". – Nils Hansen

Generative Subcategory 7.13:

7.5.1 BUDGET MANAGEMENT

7.5.1 BUDGET MANAGEMENT

"The only big difference was that in 2007 we did not do a lot of concepts mock-ups, which in '98 was the case. So, a lot of the costs in '98, additional costs, was because we had to produce, I don't know, but you know, tens of concept cars in a way, you know, in

terms of budget – it took quite some budget. Apart from that, you know –[…] You have to make a book, you have to make the interview, invite, you know – […] -- a couple of hundred people, and hotels, and all of that – the rest, logistics are comparable. So, I felt quite happy with the outcome". – FP

Generative Subcategory 7.14:

7.5.2 MARKETING OWNERSHIP
7.5.3 MARKETING OWNERSHIP
7.5.4 MARKETING OWNERSHIP
7.5.5 MARKETING OWNERSHIP / INNOVATION LOOP

7.5.2 MARKETING OWNERSHIP

"…One of the first programs that I started looking at is indeed city.people.light, …we had that book that was done in '98 – the first city.people.light book ..[…] that is the role of the segment marketing…" – FP

7.5.3 MARKETING OWNERSHIP

"The initiative was taken on a central level – […] … it is actually making use of something that is there…". – NH

7.5.4 MARKETING OWNERSHIP

"… it was more for the marketing really and the product management. It was more a tool for them to see in which direction to go …" – JP

7.5.5 MARKETING OWNERSHIP / INNOVATION LOOP

"the owner is central marketing – central, it is the regional market, like the segment managers. They are immediately involved in creating roadmaps for R&D and they can immediately also steer accordingly if they sense: ok there is a big gap in what we are doing right now and what I hear in this – […] Ja. And we as essential marketing people are always involved in these meetings. So Rinco is there, the MarCom people is there, the second manager is there, you cannot be closer to the feedback loop already". – Nils Hansen *(on 2014)*

Generative Subcategory 7.15:

7.7.1 FORECAST VALIDITY
7.7.2 FORECAST VALIDITY

7.7.1 FORECAST VALIDITY

"So we said, we are gonna reinitiate a study, a follow up, because we promised that to the market and a lot of these customers are very long, they stay 20, 30 years in that market. So, a lot of them still remember the '98 exhibition, and the book and all of that… so we said we gonna make something 10 years later, roughly, that we say: ok, we are back, we will look at the past, what was written there, what has been executed and also then re-update basically the market trends and, you know, are the things still the same

or, you know, what has changed 10 years later. So that was the idea. And also to – because that should lead to some business in a way - so also making sure that we do not do this not only to have a nice research and a book. We are not publisher as a company, at the end these needs to be translated into some business". – FP

7.7.2 FORECAST VALIDITY

"…five years… these think-tank activities should be in a rhythm, which is more or less, between five or ten years, but not longer. […] … 5-10 years, and then you need updated visions on a very high abstract//…" – RS

Generative Subcategory 7.16:

7.7.6 HORIZON 3 / TECHNOLOGY
7.7.7 HORIZON 3 / CONCEPT

7.7.6 HORIZON 3 / TECHNOLOGY

*"… technology was still lacking behind. **...[OMISSIS]...** I think the majority was not ready – or for the majority of ideas the technology was definitely not ready".* – JP *(on 2007)*

7.7.7 HORIZON 3 / CONCEPT

"…high flying concepts, like fireflies in the air or things like that. Like invisible light or light that you could – I mean there is still the laws of physics at the moment, so there were a lot of concepts that were just already kind of really out, because it was not … it is really long-term". – JP *(on 2007)*

Generative Subcategory 7.17:

7.9.2 FALSIFIABLE FORECASTING

7.9.2 FALSIFIABLE FORECASTING

"… mechanism or the matrix of the underlying structure remains, but it can always be reused to be revived, enhanced and actually – ja, I would not call it improved, but – ((re-invented)) with new insights…these visions that have been created ten years ago are still valid to a very big extent but some of them have come to life already…". – NH

Generative Subcategory 7.18:

7.10.1 GENERATING

7.10.1 GENERATING

"… without knowing what it actually would be the outcome…". – SM *(on the approach in general)*

Generative Subcategory 7.19:

7.9.1 INTEGRATING / GENIUS FORECASTING

7.10.2 INTEGRATING
7.10.3 INTEGRATING

7.9.1 INTEGRATING / GENIUS FORECASTING

"…the real scenario is the urban futures that is your – […] That is your property and it is something that is based on a lot of research I guess, and all the interviews that were made before…". – JP (on 2007)

7.10.2 INTEGRATING

"…you need to reach a certain quantity for it to - to be - for you to be able to analyse it… for us to be able to see any sort of - interconnecting themes or thought processes … certain themes are sort of risen from this… … because the content will keep changing quite organically, quite naturally, as trends and technologies and other things develop. … draw a line after five/ six events, recall that in format of the research book, seems quite - quite logical…. if we keep it in European context, maybe we are somehow a little bit closer to a saturation point … repetition …saturate". – Tapio Rosenius *(on 2011 – 2013)*

7.10.3 INTEGRATING

"… all those three things combined together create the basis to start with …". – DS *(on Architects of Light)*

Generative Subcategory 7.20:

7.11.1 TECHNOLOGY

7.11.1 TECHNOLOGY

"… the tools and the existing technologies and the tools that we provide them to execute their vision… you know, can't fulfil what they wish in a way. …for professionals, there are not so much that do not have a lot of knowledge of light, and lighting. …I don't think the intention was to finish the product, but just to illustrate indeed what kind, and then of course you need to work that out and have new technology, to really make it really meaningful in a way". – FP

Generative Subcategory 7.21:

7.13.1 STORYLINE
7.13.2 STORYLINE / EDUCATIONAL

7.13.1 STORYLINE

"… it's really about creating a better city for people…– that sounds like a very big statement, and very nondescript…". – RH

7.13.2 STORYLINE / EDUCATIONAL

"…and how to enhance architects to join and to come and to educate. Because the light

is not only about putting the green light here and blue light there and red light in the middle, it's also about creating a story – a storyline.... That's why we liked, **[OMISSIS]** *the concept of "Create the Liveable City" that much".* – DS

Generative Subcategory 7.22:

7.14.1 MOCK UPS / PHYSICAL OBJECTS
7.14.2 MOCK UPS

7.14.1 MOCK UPS / PHYSICAL OBJECTS

"… – and all that kind of equipment was available - including the basic lighting controllers and stuff like that. They were used extensively and they were in very many cases really driving the visual end-result…". – TR

7.14.2 MOCK UPS

"… it's available technology. It is absolutely the technology of this moment…". – TR

Generative Subcategory 7.23:

7.17.1 CO-CREATION
7.17.2 CO-CREATION

7.17.1 CO-CREATION

"I think the next city.people.light, the 2006 one, that was more through co-creation. […] Because the sketches were actually drawn by people in the workshops". – LT

7.17.2 CO-CREATION

"… I think in the end it is the compilation of all these inputs… the value contribution to this co-creation... …creative process for …future solutions…". Nils Hansen *(on 2014, negative feedback)*

Generative Subcategory 7.24:

7.18.1 PARTICIPATION

7.18.1 PARTICIPATION

"…– I mean lighting – when you work on urban environment, it should be – lighting should be for everybody finally... //" – JP

Generative Subcategory 7.25:

7.18.2 COMMUNITY / DESIGNER

7.18.2 COMMUNITY / DESIGNER

"…from a professional community point of view, the entire built environment (professions)- I mean, starting from architect, landscape architects, interior designers going into engineering, lighting --- lighting science, and then maybe, maybe jumping from there towards arts - people who contribute to public arts. … In terms of society, well hard to say …" – TR

Generative Subcategory 7.26:

7.19.2 BARTER

7.19.2 BARTER

"… I think that was giving them a very, very nice tool". – JP

APPENDIX B: CHAPTER 8
CODING: GENERATIVE SUBCATEGORIES
CREATION PROCESS OF CITY.PEOPLE.LIGHT: BOOK

Chapter 8: Generative Subcategories

Generative Subcategory 8.1:

8.1.1 THOUGHT LEADERSHIP / FUNCTIONAL KNOWLEDGE
8.8.10 THOUGHT LEADERSHIP / WORKSHOP / VISUALIZATION

8.1.1 THOUGHT LEADERSHIP / FUNCTIONAL KNOWLEDGE

",,, so the objective is much more than just a thought leadership and say: yes, look, intellectually how Philips can be somehow… also your intellectual partner in some kind of discussions about master planning, future of cities and this kind of stuff… based on these trends we will actually execute and that should influence part of our product portfolio". – FP

8.8.10 THOUGHT LEADERSHIP / WORKSHOP / VISUALIZATION

"… at first it entails more the sort of theoretical take on or an inspirational take on things, followed by practical workshops where people get their heads together and actually do lighting installations based on concepts that they created themselves, and that's very process driven… it was pretty systematic, and pretty formal… it was pretty formal from Philips side as well… video works and everything and after - and very shortly after each event, a video compilation of that event went online and it just went out and so the information went back to all the participants - and everything else. I think it was pretty formally managed". – TR

Generative Subcategory 8.2:

8.1.2 WORKSHOP / ROADMAP CONVERSION / FREESTREET
8.1.3 WORKSHOP / ROADMAP CONVERSION
8.1.4 WORKSHOP / INSIGHTS / BEYOND FUNCTIONAL
8.1.5 WORKSHOP / ROADMAP / DESIGN
8.1.9 WORKSHOP / MONITORING
8.3.3 WORKSHOP / BARTER / SWITCHER
8.4.5 WORKSHOP / TECHNOLOGY / EDUCATIONAL
8.4.6 WORKSHOP / MULTIPURPOSE / WROCLAW
8.5.8 WORKSHOP / MARKETING OWNERSHIP
8.6.2 WORKSHOP / GENIUS FORECASTING
8.6.5 WORKSHOP / MARKETING / WROCLAW
8.7.2 WORKSHOP / INSIGHTS / TECHNOLOGY / HORIZON 2
8.8.2 WORKSHOP / MOCK UPS
8.9.1 WORKSHOP / FALSIFIABLE
8.9.2 WORKSHOP / GENIUS FORECASTING

8.1.2 WORKSHOP / ROADMAP CONVERSION / FREESTREET

"We wanted three. […] We got… I think two really, that really landed in solutions – …a lot of concepts and sketches from clients in these workshops were about light without poles, ja, without a pole". – FP

8.1.3 WORKSHOP / ROADMAP CONVERSION

"…Which then needs to be translated in the product management…. And so it is the initial – it is the seed -so to speak- of future solutions. This is actually created in those workshops". – NH

8.1.4 WORKSHOP / INSIGHTS / BEYOND FUNCTIONAL

"… in the end what we generate in these workshops are customer insights if you may call it like that, that has nothing to do with, that product needs to look like that, or that, or that, or that. […] But that product needs to fulfill a certain function…". – NH

8.1.5 WORKSHOP / ROADMAP / DESIGN

"… It is the first step for investigating further… are we really going with Philips Design, with Philips Research in investigating further and detailing down on certain areas: …the outcome is not strong enough, …it needs to be consolidated…and it needs to be put on a broader basis than a workshop with let's say 40 people". – NH

8.1.9 WORKSHOP / MONITORING

"…we are participating very closely in the workshops, we are observing, we are circling around, going from table to table - you listen, you hear, you feel also what the people are driven by –…" – NH

8.3.3 WORKSHOP / BARTER / SWITCHER

"… some creative specifiers as we call them, so lighting designers, or some architects saw Philips with different eyes. … they saw concepts …at the higher intellectual level, more abstract as well, and we are able to talk, you know, also that kind of language and design language as well […] It repositioned for some indeed…. – but they were invited at that workshop because, you know, the – […] -- the content, the discussions, and the, you know – was – the program was attractive to them and adding value, because we never talked about product solutions actually during that workshop. … gave us access to some of their practices … a bit of a door opener, …thanks to these workshops… -- //" – FP

8.4.5 WORKSHOP / TECHNOLOGY / EDUCATIONAL

"… the learning of new technology is a very meaningful part of this - this workshop and this exercise and it is an opportunity to really - well, truly play with the light and move the feelings around and focus them and play with the colours and do the colour mixing and do those things - …it is really sort of the exercise" – TP

8.4.6 WORKSHOP / MULTIPURPOSE / WROCLAW

"I think the format is really flexible and it can be adapted almost everywhere… – they don't know anything about light, they are not educated, that is why we wanted to pay more attention on the education and technical aspects than it was not done in the original format… But on the other hand we missed that part of the original format that is theoretical, and that, I mean, has – the basic background for the whole concept of the workshops, right? …combined was a great success – DS *(on 2013 "Architects of Light" – Wroclaw spin off into* "Create the Livable City"*)*

8.5.8 WORKSHOP / MARKETING OWNERSHIP

"… I remember we first I did that a kind of brainstorm just within our department, with several experts on lighting, and then this city.people.light workshop, or the idea for it was created. And I remember that my boss was already very excited about it and I don't know if she asked it to me or we just decided together, like, we need to get in there, we need to be part of it. Because very often these kind of workshops in Philips, they are happening with, for example. you, as the organizer and also the facilitator, and then the customers. … Fernand actually accepted us to be part of this …every time, we told the stories, like, we did workshops, this is what the architect thinks, this is what happens in the cities, and I think that was also the idea at that moment. It was good for our department to be a knowledge centre". – JP

8.6.2 WORKSHOP / GENIUS FORECASTING

"… knowledge …we did workshops, but then again it was very much related to product development. We did workshops on road lighting, future road lighting, and it was – there were scenarios created, so it was a little bit of these kind of – ja, maybe – but it was different – […] It is more intuitive, that you kind of bring it to yourself… Because we were always supposed to do these things, because we were exposed to this kind of knowledge, or to this kind of workshop and things.... So its part of me, but it was of course because I was having that role at that time". – JP

8.6.5 WORKSHOP / MARKETING / WROCLAW

"…we have been inspired. "Architects of Light" program was inspired by those two things that you have mentioned – by city.people.light and "Create the Liveable City" workshops. …we have been already doing such small workshops, not only ***[OMISSIS]*** *for creative specifies but also for other target groups, like for example for trade… […] … we did not have quite an idea how to do the theoretical part and how to convince architects and creatives to deal with Philips and to just – to be inspired"* – DS *(on 2013 "Architects of Light" – Wroclaw spin off into* "Create the Livable City"*)*

8.7.2 WORKSHOP / INSIGHTS / TECHNOLOGY / HORIZON 2

"…Probably only 1, 2, 3, 4, 5 percent will make it to some kind of board, transition paper, towards research and development. But still it's always valid to talk about, and these workshops are exactly meant for that purpose. The way forward internally is not so much, or let's say, is using these visions created as a part of a proposition. …the trend in urban is going more and more into unified environments or into interactive sensing development, it is going into a direction where we, I don't know, we are putting cities underground - one of the scenarios for example. So these visions are insights on which we build propositions, and these propositions then are created in a technological way

within R&D, Research & Development. …this we need to investigate further, because for this we would need new technology. …We have some ideas also based on for example city.people.light and these kind of … this kind of things are parts of propositions or triggers to research to investigate further, on technological viability but also on acceptance". – Nils Hansen

8.8.2 WORKSHOP / MOCK UPS

"… very different from the first [NOTE: 2006] *in that sense – different – more concrete, more practice – more focused on practice. …giving them a tool. And I think it was the right part of really theory… it started in the 2006 as a really like, as I said, a privileged thing, you know, only very exclusive from – only the real high end thinkers and decision makers and you know – …Everybody needs to work and start thinking of these things and contribute to those things. And I think that that was more successful maybe in the last one".* – JP

8.9.1 WORKSHOP / FALSIFIABLE

"The added value of the expert interviews was really putting it – the whole workshop-scenarios in a platform for collaboration. It is not a selling attempt. It is a platform where we want to interact with this target group of architects and urban planners, and the expert interviews are one way of, for one getting also the reputation in this workshop scenario, to talk to this target group. …So the expert interviews are one way to get also some kind of this reputation in this program. …a valid scientific layer on which we then can build to transfer this research, the matrix, all the outcome of city.people.light research in the past into actionable workshop scenarios that then people can really work and play with in the real setting". – Nils Hansen

8.9.2 WORKSHOP / GENIUS FORECASTING

"…I remember we discussed the different topics that were – that came out of the workshops. We of course studied the concepts because we were… I remember that we worked on that, also on how that could be turned into product solutions. …I think you would need someone like you in form of a person, to really open their eyes and to think…" – JP *(on 2006)*

Generative Subcategory 8.3:

8.1.6 ROADMAP / FREESTREET / DECLUTTERING
8.1.7 ROADMAP / INSIGHTS / FREESTREET
8.7.1 ROADMAP / FREESTREET

8.1.6 ROADMAP / FREESTREET / DECLUTTERING

"In FreeStreet it was: de-cluttered streets …all these kind of visions, or these kind of situations were transferred in visions how lighting should help to de-clutter those streets. In the end one possible solution of this problem is FreeStreet. …LumiMotion is something that is also – it is fully ((independent)) of every luminaire, but it solves together with the luminaire a certain problem …this is then actually some kind of derivate from those visions and became to – came to life". – NH *(on 2007 functional follow up)*

8.1.7 ROADMAP / INSIGHTS / FREESTREET

"Decluttering …one of the positive examples. …And that is decluttering the space, and that was indicated in city – in work.people.light, and also in city.people.light. I don't think it is unique to these sessions, right? There are many other indicators, that decluttering is a trend?" – Rogier van der Heide

8.7.1 ROADMAP / FREESTREET

"De-cluttering approach and all of that. …so there is a one-to-one relation we put in the roadmap …that led to the FreeStreet lighting solution that we sell today. It is a product, a catalogue-product, now, which is a luminaire just on the wire, so, which is almost invisible during the day and that during the night you see the only the lighting effect and no poles. […] …from the big trend in 2007, which was already identified in '98 about sustainability, so both, social sustainability but also environmental sustainability, more energy preservation. […]… in one of the ideas that came quite strong in several workshops was the – that… there is in a lot of places in cities there is a lot of light when there is nobody, and that sometimes they switch off completely – and this programs – or even dim at 50% or whatever the level, but very late at night, like at 1 o'clock in morning or something like that, where there is absolutely nobody… – so we took that idea from city.people.light in 2007, and we derived an innovation program, leading to what is now a product, catalogue-product, which is called LumiMotion... So, we needed new technologies – sensors technology and all of that, it was a real innovation coming out of city.people.light". – Fernand Pereira

Generative Subcategory 8.4:

8.1.8 DESIGN / ROADMAP
8.2.2 DESIGN / THOUGHT LEADERSHIP
8.3.2 DESIGN / MULTIPURPOSE
8.5.4 DESIGN / BUDGET MANAGEMENT / CONTINUITY IN TIME
8.11.5 DESIGN / DESIGN PROCESS
8.11.6 DESIGN / DESIGN PROCESS / TECHNOLOGY
8.11.7 DESIGN / DESIGN THINKING

8.1.8 DESIGN / ROADMAP

"…. But, I don't know if that came out of city.people.light… - we are having the first application in Norway now, that we designed… And I really appreciate the fact that Philips is trying to – to look into the future and think of the products before we – before we know we need them…". – KB

8.2.2 DESIGN / THOUGHT LEADERSHIP

"…it is essentially the promotion of the lighting design profession, the value lighting design can bring to […] …those are the things that -- well, measuring them is hopeless …". – TR

8.3.2 DESIGN / MULTIPURPOSE

"…a certain playfulness, it's about mocking it up – and it enables all kind of stakeholders to connect – The technician can say something about it, a mayor can say something about it, you know – when he sees it, he can engage, and a designer can express…" – RH

8.5.4 DESIGN / BUDGET MANAGEMENT / CONTINUITY IN TIME

"I think one other thing that it is almost a shame is that city.people.light was not developed through the complete design process. …sort of project, with a budget and a beginning and an end, rather than a structural process…. So it kinda tackled sort of the research end, the beginning of the design process. …it was never really developed further - which is a shame… – " – LG

8.11.5 DESIGN / DESIGN PROCESS

"… Design Thinking is not impossible amongst engineers, or it is not impossible amongst other people that have a very creative frame. So, I can't say that it is because there is Philips, and it is design that it is possible, that is – …I think there was a lot of knowledge in your department when you were at Philips Design, about methodologies and – or ways to analyse these things or to work with these processes. And I think it is very typical part of Philips Design at that moment…". – JP

8.11.6 DESIGN / DESIGN PROCESS / TECHNOLOGY

"The process […] Well, it was like: how else would you do it? - once you have the process - a proper design process in place which includes the concept control and analysis and idea creation... And then you work that towards a technical solution…". – Tapio Rosenius *(on 2011 – 2013)*

8.11.7 DESIGN / DESIGN THINKING

"… more related to Design Thinking. […] To the creation of the concept, you know, and to showing people how they can achieve that concept. […]…". – DS

Generative Subcategory 8.5:

8.1.10 MATRIX / WORKSHOP / INNOVATION LOOP / MONITORING
8.4.3 MATRIX
8.8.1 MATRIX / TECHNOLOGY
8.8.3 MATRIX / FALSIFIABLE
8.8.4 MATRIX / DESIGN PROCESS
8.8.5 WORKSHOP / MATRIX / BARTER
8.8.6 MATRIX / DESIGN / WORKSHOP
8.8.7 MATRIX / SOCIO-CULTURAL
8.8.8 MATRIX / LEVERAGED
8.8.9 MATRIX / LEVERAGED

8.1.10 MATRIX / WORKSHOP / INNOVATION LOOP / MONITORING

"…it helps us internally to create a fundamental database in a way, on potential streams of development…. … you could use actually the city.people.light matrix also internally to

focus a bit more on.... The workshop-scenario as such is for sure, or every workshop is kind of a new "sanity check": are we going in the right direction? […]…. Because we get an immediate feedback in these workshops. We get an immediate feedback also if a discipline like lighting design or urban planning is undergoing major changes. You feel - you hear it, you feel it, you get questions leading in that direction […] this is the monitoring part. It is not really a monitoring process in a way but it is a regular sanity check …this is the closest you can get from a central perspective to the customer…". – NH

8.4.3 MATRIX

"…"Broaden the way I work". … – it made my work more analytic…". – KB

8.8.1 MATRIX / TECHNOLOGY

"… it's sort of a helping tool to do the breakdown right and when you do sort of have a clear sort of vision and goal of what you – what you think this place needs, and this is discussed and communicated with the municipality… …very clear tool –…". – KB

8.8.3 MATRIX / FALSIFIABLE

"…leverages from a more scientific... …the whole workshop including the research or the revived research was meant to be one string of, ja, of transformation... […]". – NH

8.8.4 MATRIX / DESIGN PROCESS

"… it [NOTE: the matrix] *is associated with the very beginning of the project… […] you actually start the design process… …kind of structured… //"* – TR

8.8.5 WORKSHOP / MATRIX / BARTER

"Intellectually, knowledge wise…. But in the end, let's say, the content generated and this knowledge generated during those workshops form the side of our audience towards us should help us to do the right things in the future… topics that we need to address. And the other way around, the knowledge that we try to transfer during this workshop, the matrix for example…". – Nils Hansen *(on 2011 – 2013)*

8.8.6 MATRIX / DESIGN / WORKSHOP

"…you really start from a very broad matrix of city.people.light with the different urban development possibilities to - let me give you some examples, talking about lighting design as a function to - and now it is getting hands dirty and really work on it and create your visions and then you bring them to life in one go…" – NH

8.8.7 MATRIX / SOCIO-CULTURAL

"With "matrix" you mean the socio-cultural forces? […] Yes, it plays a role because it is a – it is a scheme that I can look at and I can think, you know, what do we have here – …". – KB

8.8.8 MATRIX / LEVERAGED

"…I introduced it in the office, I used it in my – in my office and as a tool for my work". – KB

8.8.9 MATRIX / LEVERAGED

"… And we thought that it was weak on identity, it was also very weak on, you know, just the average sort of comfort in the dark time. And the – we also thought that we should try to use lighting for sort of belonging, city belonging, because of this multi-cultural society. So we decided to use these three sociocultural forces to create a set of tools and then make a sort of a breakdown of all the areas in the cities and apply the tools where they were needed. So that was kind of structural, but it was also very helpful". – KB

Generative Subcategory 8.6:

8.1.12 REFLEXIVE / SALES

8.1.12 REFLEXIVE / SALES

"… LIAS would help us to keep it to a non-product related, ja, solution. You would need this and this lighting effect, is what they want I would say. They would not say you would need this and this product… it is a bit like a theatre play…. sort of poetic advisors who are the LIAS people…. Sales is always asked: you are part of the group, but your main job is now - listen… the most valuable thing that they can get out of is: the knowing of the group, knowing who is in there and knowing what their drivers are, and then there is something that you can later use as a sales guy…". – NH

Generative Subcategory 8.7:

8.2.1 MULTIPURPOSE / BRAND THEME
8.2.3 MULTIPURPOSE / SKETCHES / MOCK UPS

8.2.1 MULTIPURPOSE / BRAND THEME

"… if you would look practically at the goal, which was always this converging to a dialog with customers and stakeholders, then I would say it very much achieved it. …it's become a kind of well-known name by all these people…" – LT

8.2.3 MULTIPURPOSE / MOCK UPS

"… we wanted something to generate an immediate result for our audience, but also for ourselves. We wanted to create a platform where our sales people can connect with something that they feel comfortable with to our customers …ok we do a mock-up, we work on this - but without selling - but they need to have a field of confidence…". – NH

Generative Subcategory 8.8:

8.2.4 NPS / KPI / NETWORKS
8.2.5 NPS / CRM / WORKSHOP

8.2.6 NPS

8.2.4 NPS / KPI / NETWORKS

"… relationship building tool. … KPI's according to a number of invitees, we set KPI's according to, ja, let's say – I would not call it "lead generation", but relationship performance, and thirdly we measured every event with an NPS, Net Promoter Score to make sure we did the right things and that actually the people liked what we did…". – NH

8.2.5 NPS / CRM / WORKSHOP

"These days marketing activities that valuable like these workshop-scenarios for example are always questioned in terms of what kind of sales does it generate. …the workshop can only be a part of it. The feedback so far from both, sales organisations, accountants managers but also local marketing people, and also centrally for sure - and together with the NPS scores and objectives measured during these events show that the perception of Philips defiantly increases in this audience, and there is much more openness also to interact and consult us in early stages of projects, in the different markets. … the customer relationship value is really high. ….So it is becoming increasingly – or it is becoming easier, hopefully in the future, to also generate this attention for these workshops… it should be something that generates a collaborative environment, instead of immediate sales, but that will lead to certain projects later on […]". – NH

8.2.6 NPS

"… Net Promoter Score. … it is nice to compare different things and to evaluate over such a section, but I don't think it gives deep insights. … it is not possible to evaluate people with such a score… –" – JP

Generative Subcategory 8.9:

8.3.1 MULTIDISCIPLINARY

8.3.1 MULTIDISCIPLINARY

"…there was a platform created with city.people.light –at several – at all levels people were talking about this. … urban research…". – JP

Generative Subcategory 8.10:

8.3.5 BRAND THEME / UNIQUENESS:
8.3.6 BRAND THEME / CONTINUITY IN TIME
8.3.7 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD
8.3.8 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD
8.3.9 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD
8.6.4 BRAND THEME / CRM / NETWORKS

8.3.5 BRAND THEME

"…city.people.light is widely recognised within Philips anyhow… …". – NH

8.3.6 BRAND THEME / CONTINUITY IN TIME

"… city.people.light is now almost 20 years old, it really shows that this is a continuous thing within Philips… the only one…". – NH

8.3.7 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD

"… So, anything that will contribute to that vision about that future of urban lighting for cities involving cities, city authorities have that branding: "city, people and light" – city is in the centre…". – Fernand Pereira

8.3.8 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD

"[…]…the ownership of that award is with Philips. […] …Totally disconnected from manufacturer's considerations […]". – FP

8.3.9 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD

"I would call it a brand itself…". – DS *(on city.people.light extension to Awards)*

8.6.4 BRAND THEME / CRM / NETWORKS

"… they were linked with the Association of Architects in, you know, in Singapore, and this kind of circles. … actually they did also some kind of city.people.light show in Singapore – you know, that was a spin-off in a way and that's were the city.people.light branding in a way, sub-branding if you want, was important for them…". – FP

Generative Subcategory 8.11:

8.4.1 EDUCATIONAL / MULTIPURPOSE / DESIGN
8.4.2 EDUCATIONAL / WORKSHOP
8.4.7 EDUCATIONAL / WORKSHOP / MATRIX
8.4.8 EDUCATIONAL / DESIGNER
8.3.4 EDUCATIONAL / UNIQUENESS

8.4.1 EDUCATIONAL / MULTIPURPOSE / DESIGN

"…it always is also a learning moment for us – for Philips. … knowledge was also brought back to our team and to product management and to everybody that needs to develop new solutions in the future. … it is a platform, it is a knowledge share – I think it was not only creating an event, it is more: spreading the news and spreading the… – and starting up the discussions […] …eventually it is the leading people that are leading in lighting design and architecture that needed to be done in the countries …I think it is so good actually for everybody, to know about this, the contacts and know about what is discussed and the visions that there are and how also the leading people within architecture and in city development are thinking about this. I think we are also supposed to spread out within Philips". – JP

8.4.2 EDUCATIONAL / WORKSHOP

"… I think in the 'Create the Liveable City' events it was far more accessible for all colleagues, so everybody from the countries could actually just listen and learn and participate. … and in the first workshops there were hardly any Philips people…" – JP

8.4.7 EDUCATIONAL / WORKSHOP / MATRIX

"… for me it should have been, you know, it should have been even more sort of lectures about the academic work, but that - of course also the practical workshop is good too – … and look at the socio-dynamic drivers that you have created for this program was very, very interesting. And I used it – I used it right after for a light plan in the very North and that was very fruitful I think". – KB

8.4.8 EDUCATIONAL / DESIGNER

"I think the whole academic program needs to be presented in a maybe more – in a way that, you know, people understand it easier. Both lighting designers and, you know, whoever else that could benefit from…". – KB

8.3.4 EDUCATIONAL / UNIQUENESS

"… has a very Olympic scale, it is very professionally done. And then of course this sort of academic, educational components and the research related to it. … I am not sure if even Philips even understands how unique this really is…". – TR

Generative Subcategory 8.12:

8.4.4 COMMUNITY / DESIGNER
8.16.5 COMMUNITY / SOCIAL MEDIA
8.16.7 COMMUNITY
8.16.8 COMMUNITY / MATRIX / WORKSHOP
8.16.9 COMMUNITY / NETWORKS / WORKSHOP

8.4.4 COMMUNITY / DESIGNER

"…if you actually look at something and discuss it, it is much, much easier to get a good discussion and actually learn something from it". – KB

8.16.5 COMMUNITY / SOCIAL MEDIA

"…I mean that is not a community. If you have five or six reactions, …You don't go too much in depth, when you are just chatting on the Internet. […] It is a people thing. It is really the people – It's really – I mean bonding – it is not only on the Internet. It is – you need to know a person before and share something together before you get that". – JP

8.16.7 COMMUNITY / WORKSHOP

"I don't think you can call it a real community. I think there is of course a kind of a buzz around this at certain moments. But I think a community is maybe a little bit too much… – …and you meet people again that have participated in workshops, you still come

together again – … a kind of community in that sense. …I would not give it that name" – JP

8.16.8 COMMUNITY / MATRIX / WORKSHOP

"…community …kind of following this matrix. … But what I think is that these workshops created a lot of awareness and the word spreads, both for the research as well as for Philips as being a partner in this process". – NH

8.16.9 COMMUNITY / NETWORKS / WORKSHOP

"…because the workshop was with other lighting designers and landscape architects and architects, and that's always good to meet colleagues to get to know them and to discuss. … and then a workshop like this sort of broadens the field for the lighting designers and the landscape architects and makes it a platform for collaboration, and exploring, exploration, and I think that's very, very important and valuable […]". – KB

Generative Subcategory 8.13:

8.5.1 BUDGET MANAGEMENT
8.5.6 BUDGET MANAGEMENT / MARKETING / CONTINUITY IN TIME

8.5.1 BUDGET MANAGEMENT

"… a new initiative, and then people questioning, and then probably a couple of years later they - it took off. […] And then there was in 2006 when the second city.people.light… […] And then there was an event around that. I attended that. And that seemed very dynamic and lively…" – LT *(on 2006)*

8.5.6 BUDGET MANAGEMENT / MARKETING / CONTINUITY IN TIME

"…office.people.light. … we follow the same structure, funny enough. …city.people.light was more successful, because there was a second wave, but still - is very hard to find – […]". – OP

Generative Subcategory 8.14:

8.5.2 MARKETING OWNERSHIP / NETWORKS / WORKSHOP
8.5.3 MARKETING OWNERSHIP / CRM
8.5.5 MARKETING / CONTINUITY IN TIME / WORKSHOP
8.5.7 MARKETING OWNERSHIP
8.16.2 MARKETING / SWITCHER / DESIGNER
8.16.3 MARKETING / SWITCHER / WORKSHOP
8.16.4 MARKETING / SWITCHER
8.16.6 MARKETING / SWITCHER
8.17.3 MARKETING / ARCHITECTS' APPROACH / DESIGNER

8.5.2 MARKETING OWNERSHIP / NETWORKS / WORKSHOP

*"… it was triggered to a certain extent by a focus that Philips needed to **[OMISSIS]** create also towards the creative target group, the 'specifiers' as well call them*

internally.... So, people that are quite high in the decision chain. …transfer our brand proposition that we have as Philips …we had city.people.light as a research, although it was the previous version, it was from 2006 if I recall it right. …so we decided that we take this and connect with the people that know about it, and then try to transfer it into a marketable activity. And that was then the outcome of the 'Create the liveable cities' workshops". – NH

8.5.3 MARKETING OWNERSHIP / CRM

"… sales driven company …they profit from it the most, because for them it is a door opener, it is a knowledge platform and so on…". – NH

8.5.5 MARKETING / CONTINUITY IN TIME / WORKSHOP

"… really wanted to make this a continued program, and sort of travel or roadshow it in all the different markets…. Even when we look into Europe, it is not that we are all the same perceived in the audience, I said in some markets we have a better connection, in some less – and ja - you have seen it probably in the workshops as well…. …there was never the intention to limit it to a timeframe, it is more an idea of having this as a continuous element in our marketing plan". – NH

8.5.7 MARKETING OWNERSHIP

"… after a couple years, like then in 2005 or something like that, you know, we did not do much about the book… "city.people.light reloaded… Ok, we really need to do something about it. We really need to start on –" – Fernand Pereira *(on 2006)*

8.16.2 MARKETING / SWITCHER / DESIGNER

"… driven by Philips's marketing, in my opinion, so they invite the people they find relevant - they wanna like create new relationship, break into certain studios, break into certain fields - you can totally see that from the kind of people that are coming in. …like that certainly improve the image amongst high-end designers - not only maintain. Because Philips image amongst high end designers is not necessarily that great…". – TR

8.16.3 MARKETING / SWITCHER / WORKSHOP

"… we gave some quotas per country… the workshops then – we selected, so we wanted to have it global, so we selected a couple of cities around the world, that, you know, where we could have a kind of regional view point, then the invitation was – so, we defined it – so, I defined what kind of customers should be invited. […] …key stakeholders… Ok, please send me some potential key stakeholders. And then based on, you know, we received some names and then we had to make the selection, but then it was more based on having profiles that add to each other. So like if there would be ten great lighting designers, then we would not like ten". – FP

8.16.4 MARKETING / SWITCHER

"… from that moment there was one person, being me, who was acting in a formal way as a program manager on the lighting projects and activities of the cities, with this future

vision in the pocket… As soon as this was formalised, I – for example I got this invitation by – from Frank van der Vught from Philips Lighting, the CEO – CEO from// […] Ja, CEO of Philips Lighting. […] He was the highest on the – in the – on the [foreign] Boschdijk [/foreign …". – RS

8.16.6 MARKETING / SWITCHER

"… what I wrote down, as our new strategy towards the future, was interesting enough on the content side for the people executing the city.people.light platform…" – RS

8.17.3 MARKETING / ARCHITECTS' APPROACH / DESIGNER

"… for 2006 it was a combination of decision makers in the municipalities, or decision makers in general, and in combination with architects and lighting designers…. The audience is different in the sense that there was more people without a lot of experience in urban planning and in thinking of city scenarios…". – JP

Generative Subcategory 8.15:

8.6.1 NOT LEVERAGED

8.6.1 NOT LEVERAGED

"…city.people.light… – it should be probably even wider shared within Philips…". – NH

Generative Subcategory 8.16:

8.1.11 MONITORING / GENIUS FORECASTING

8.1.11 MONITORING / GENIUS FORECASTING

"... it will influence the people working on their projects later – but I don't think that they will just take actually the research and say: ok, I have here a case … It is not so systematically". – JP

Generative Subcategory 8.17:

8.6.3 SWITCHER / BRAND THEME
8.19.1 SWITCHER / CRM
8.19.2 SWITCHER
8.19.3 SWITCHER
8.19.9 SWITCHER / BARTER / WORKSHOP

8.6.3 SWITCHER / BRAND THEME

"… the best I experienced was the one in Rotterdam, with in the panel of experts discussing the outcome of the city.people.light… for example the LUCI platform with the city.people.light awards ceremonies". – RS

8.19.1 SWITCHER / CRM

"I never felt in – by any means and in any occasion// […] //uncomfortable because of a supposed question - and then I have to include Philips in this contract… […] …And from one moment to the other this turned out to be that interesting that I was invited to join this workgroup sessions in Lyon in 2006…". – RS

8.19.2 SWITCHER

"… once you are on a platform…. But on the other hand, you also, from that moment on, need to prove that you are worth being on this platform…". – RS

8.19.3 SWITCHER

"… in certain areas it opened the door to get into, ja as you say, these kind of inner circles, as Philips…". – NH

8.19.9 SWITCHER / BARTER / WORKSHOP

"… It is really opening a door for us// […] //into these networks of architects and urban planning. So, this is really the key. …it also, let's say, the program as we set it up has another dimension that is more the lighting design discipline, which we have not tackled so far, but also there it helps the local organisations at least on a small … because the workshop actually offers a platform, where not only the manufacturer Philips can connect to architects and urban planners, but also some kind of service partners like the lighting designers can connect to those guys. For them it is also a platform that they can use …". – NH

Generative Subcategory 8.18:

8.6.6 CRM
8.16.1 CRM / SWITCHER / WORKSHOP
8.17.1 CRM / CONTRIBUTION / WORKSHOP
8.19.4 CRM / NETWORKS / WORKSHOP

8.6.6 CRM

"… I don't think there has been a special follow-up on this type, except from when I joined the trip to Lyon, then there was a short presentation of the city.people.light there". – KB

8.16.1 CRM / SWITCHER / WORKSHOP

"… because of city.people.light we got a access to completely new ways – well, as I said before, for some of the people that were involved, deeply in the workshops for instance or coming to the forum … that opens the doors to their office for instance, to their practice, to projects –" – FP

8.17.1 CRM / CONTRIBUTION / WORKSHOP

"… the second one, then you knew immediately, because there were customers – so it also served even another purpose, it was sort of engaging with customers on the project. […] I don't know if that is always – maybe then you have too many purposes of the multi-

purpose-strategy then - they have the innovation, and the subsequent PR, and then the kind of entertainment of customers during the workshop as well, it's maybe it is too many - too much". – LT

8.19.4 CRM / NETWORKS / WORKSHOP

"As it is a matter of relationship building, the local market that is hosting the event has a say in who they want to invite, with a clear description for, let's say, in the rules of the workshop… the network that is existing in the markets, if there is no network existing for the local market it is really difficult to get good people on board –… And we in the end we had to deal with a lot of lighting designers as workshop participants which is not the main objective…". – NH

Generative Subcategory 8.19:

8.7.3 SKETCHES / HORIZON 3
8.10.3 SKETCHES / SCENARIO / GENERATING / WORKSHOP
8.17.11 SKETCHES / CO-CREATION / DESIGN

8.7.3 SKETCHES / HORIZON 3

"…The sketches you can sketch the things that are not possible. So that's perfect. So you can have a lot of blue-sky thinking there. Because you sketch and it does not matter if the product can do it, but when you actually invite them to make a scenario or set up or scene with real products, of course you are stuck to reality …" – JP

8.10.3 SKETCHES / SCENARIO / GENERATING / WORKSHOP

"…As soon as you started hands-on, you don't do idea generation any more, you start to make a great lighting scenario. But that's not idea generation. … I would actually normally say that for such a workshop, I think sketching is better … I think then sketching is very fine. But, you can't do it the whole time like that, because I mean – future scenarios, they don't change in a couple of years, they don't – so what should we do then for the years later – we should have the same sketches back? …and people want to feel also that they are creating new stuff, so that is why I think it was a good choice to not do sketching again… –". – JP

8.17.11 SKETCHES / CO-CREATION / DESIGN

"… then in order to publish it and to show it, I remember that Dido and that there was another illustrator of Philips Design, they were actually finalizing it or making more presentable. […] It was more final sketches and of course there is always something of the drawer itself in the sketch, of course, that is definitely true. …we got the agreement of Fernand to participate at that workshop, because we were supposed to be – we were a knowledge centre… – but we were hidden, so we were supposed to be illustrating – I was supposed to be an illustrator". – JP

Generative Subcategory 8.20:

8.7.4 HORIZON 3

8.7.4 HORIZON 3

"We wanted to see – and if the future is no artificial light, let it be…" – FP

Generative Subcategory 8.21:

8.10.1 INTEGRATING / DESIGNER
8.10.2 INTEGRATING / INTERVIEWS / WORKSHOP

8.10.1 INTEGRATING / DESIGNER

"… it allowed me to actually dive into this into this thinking about urban strategies. And what we did together, and I think that was also very interesting part - was to make a translation, like: what could that mean for lighting? …What can we do as a lighting designer? … I think that is something that is so valuable for people, and I think that was also causing great reactions on the people, because you are not only a lighting designer, putting some lights there just to make it lighter, you know, you're actually – it makes you understand that even though people think it already but it puts you in a frame. …for me a very interesting part is that it was really working on those links" – JP

8.10.2 INTEGRATING / INTERVIEWS / WORKSHOP

"…a very big part of research done beforehand. I remember that there was a lot of interviews with architects and that was…, I think, a very strong part of that version. There was very big architects interviewed, Richard Rogers… there was Odile Decq… – I remember that during the workshop it was also impressive for other people, because you got a very compact amount of knowledge and insights in this - presented like this, very easily, very easy, accessible for people during the workshop…". – JP

Generative Subcategory 8.22:

8.11.1 TECHNOLOGY / REFLEXIVE
8.11.2 TECHNOLOGY / HIGH DESIGN
8.11.8 TECHNOLOGY

8.11.1 TECHNOLOGY / REFLEXIVE

"… it definitely plays a role, if you look into these developments…[…]…if you also look into new technologies, we are very much driven still by the technological development, we are an engineering company still. But we are improving on transferring technology into value for customer…[…]…we are trying to re-build our organisation also in a way to respond to these future challenges". – NH

8.11.2 TECHNOLOGY / HIGH DESIGN

"… the feedback that we get from people is that it is not sort of technology driven, which is personally for me a great plus -- …much more kind of a conceptual, psychological, analytical kind of thoughts than technical thoughts…". – TR

8.11.8 TECHNOLOGY

"Actually the good thing is that those guys are not technologically driven, they are in their own discipline, they have a certain knowledge about lighting… it is not so much about the technology, it is more about the "medium" light, ***[OMISSIS]****… – can be tackled without any technological reference…[…]… we need to interact with these kind of things, and that has nothing to do in the first place technology. Technology is just a carrier to create solution".* – NH

Generative Subcategory 8.23:

8.11.3 HIGH DESIGN
8.11.4 HIGH DESIGN / MARKETING

8.11.3 HIGH DESIGN

"… I think there was a more set back from the reality, whereas when you are a lighting designer there are often really into the execution, let's say. So, less time for high end thinking…[…] I think when I started it was more closely related, but at a certain moment within Philips there was a stronger focus really on studying trends, on developing new products, on creating visions for that about workshops or training of people - was just getting a little bit away. I think it is still possible to combine it - it was just at that context not really the case… - when you are a lighting designer and you are working with a lot of projects. I mean, right now we just have a lot of projects and they short deadlines. And I can really see that my job is quite different from what it was before". – JP

8.11.4 HIGH DESIGN / MARKETING

"… not only a marketing activity. …it depends on how you define design… the whole R&D process is a design process in a way, so it is designing new solutions, not so much from a - from a appearance point of view but also more on what type of value is the – …In that sense I would definitely call it a design program…". – NH

Generative Subcategory 8.24:

8.17.2 CONTRIBUTION / ARCHITECTS' APPROACH
8.17.4 CONTRIBUTION / CRM / WORKSHOP
8.17.6 CONTRIBUTION / WORKSHOP / DESIGN
8.17.7 CONTRIBUTION / WORKSHOP / CO-CREATION
8.17.9 CONTRIBUTION / DESIGNER

8.17.2 CONTRIBUTION / ARCHITECTS' APPROACH

"… I think that 10 years later, the situation was completely different. And I wanted that program to be outside-in". – FP

8.17.4 CONTRIBUTION / CRM / WORKSHOP

"Maybe because it was very new and it was – I don't know – at the time, maybe there was more the economy doing better, so people had also the chance to just fly around and participate in this kind of workshops… – it was interesting finally, because we did not only have the top notch thinkers, and city planners in, but we got a lot of people who were working with lights and that was another target group finally.... But I did not feel that there was so much input from their side. It was less a platform than it was in the first part – in the first version. It was more like we shared the knowledge of the research with them, and then they we were doing the workshop and playing with the light and of course we talked about it, but there was less coming from them" – JP

8.17.6 CONTRIBUTION / WORKSHOP / DESIGN

"… the workshop participants, who took the role of the designers -- I did not take the role of the designer - the participants were - …they were also contributing to the design and maybe - maybe in certain cases driving is…- I'd say that is group dynamics". – TR

8.17.7 CONTRIBUTION / WORKSHOP / CO-CREATION

"… share my experience and to do collaborative workshop with the people with the same profession. …I found the whole workshop very, very inspiring. It was for me it was perfect…". – KB

8.17.9 CONTRIBUTION / DESIGNER

"… it's difficult to take a set of – a bunch of equipment and do an idea… I am a set designer, so I create cities on stage and you know for me it is a completely different process of conceptual work… - what is interesting with the workshop is to find out how people think differently about things. You know, what they perceive and what their ideas are and how they deal with it". – KB

Generative Subcategory 8.25:

8.17.5 CO-CREATION / WORKSHOP / THOUGHT LEADERSHIP
8.17.8 CO-CREATION / DESIGN PROCESS / WORKSHOP
8.17.10 CO-CREATION / WORKSHOP

8.17.5 CO-CREATION / WORKSHOP / THOUGHT LEADERSHIP

"… from my definition of co-creation, is like – we, so, it is co-creation between themselves, so that means that everybody injected in this workshop, his knowledge about the market, his knowledge also about how he sees the trends based on experience, also based on his own research maybe, so it was really like, everybody putting together, you know, some, you know, their knowledge to create something together…[…]… if you as a manufacturer don't understand these kind of mega trends then, you know, then you are developing the wrong solutions for the future". – FP

8.17.8 CO-CREATION / DESIGN PROCESS / WORKSHOP

"…the practical workshop. Because until that point the role of the participant was basically to sit in the audience and listen to lectures - but once the - the workshop took off - from that moment on, it was an extremely co-creative environment. […] … -- and it started of like a real world, proper lighting design process - it started from concept and then the technical aspects came later". – TR

8.17.10 CO-CREATION / WORKSHOP

"… – we had also these panel sessions where they have asked to give their input and their vision… – they gave a part of themselves during the workshop… it was not the co-creation of the – they gave something from themselves, but I would say they were contributing… we give the framework and the guidance – a solid framework, so – it's not that they can completely change the content. They can comment on it and they can give their versions… the framework was quite solid… when they had to work with different themes, they were – ja – it was always coming from us… –" – JP

Generative Subcategory 8.26:

8.18.1 PARTICIPATION
8.18.2 PARTICIPATION / WORKSHOP

8.18.1 PARTICIPATION

"… that person would feel also a little bit lost, because you talk about lighting, but she does not – that is not understandable for that person... I don't think that is the right moment, but I think those moments should be created… consulted …". – JP

8.18.2 PARTICIPATION / WORKSHOP

"In the actual workshops scenario, I would not do it actually. […] Ja, because it would kind of disturb the urban planning part in it… And when you bring this very specific focus in these workshops you lose a bit the bigger picture, and that would be a pity… I would always say keep it on a professional level and not involve citizens on that level […]" – JP

Generative Subcategory 8.27:

8.19.5 BARTER
8.19.6 BARTER / WORKSHOP
8.19.7 BARTER

8.19.5 BARTER

"… I think people respect the fact that we contribute to research, that we…. that we are involved in this and interested in, what is really going on in cities… – ..they have the impression that there is a lot of knowledge…". – JP

8.19.6 BARTER / WORKSHOP

"Not just exploiting the customer, but to also giving him something to take away. So, I can invite people to a workshop… the reason why we extended that, why put it on that broad level and also took one and a half days for it, is really to create not only an added value for Philips but also an added value for the people visiting these events… the city.people.light research in all it's three stages by now, is absolutely valuable content for this target group…". NH

8.19.7 BARTER

"…we wanted to have it seamlessly, so in the end the first half of the workshop is the takeaway for our audience, and the second half is our takeaway, if you can - you could cluster it like that. […]…it is their value to listen, so that is our takeaway". – NH

Generative Subcategory 8.28:

8.19.8 PROGRAMMER

8.19.8 PROGRAMMER

"… I think that was for me one of the biggest influences with city.people.light, was to introduce the businesses to this approach of engaging with multiple stakeholders, and getting feedback loops going… - it's a thought process. And that for me was the biggest influence. Less the content, more the approach". – LG

APPENDIX B: CONVERSION TABLE INITIALS TO NAMES AND ROLES

SM = Stefano Marzano, fr. CEO, Philips Design, Eindhoven, The Netherlands
TR = Tapio Rosenius, Founder, Lighting Design Collective, Madrid / Helsinki
RH = Rogier van der Heide, Chief Design Officer, Philips Lighting, Eindhoven
RS = Rik van Stiphout, Programme Advisor Light & Culture, City of Eindhoven
LG = Lorna Goulden, Director, Creative Innovation Works BV, Eindhoven
OP = Oscar Pena, Global Creative Director, Philips Lighting, Eindhoven
KB = Kristin Bredal, Founder, Zenisk, Oslo, Norway
NH = Nils Hansen, Senior Manager, Philips Lighting, Eindhoven
LT = Laura Taylor, Creative Lead Innovation, Philips Lighting, Eindhoven
JP = Jasmine van der Pol, Lighting Designer, AF Lighting, Copenhagen, DK
DS = Dorota Slawinska, MarCom Manager, Philips Lighting Poland SA, Warsaw
FP = Fernand Pereira, Head of LIAS/Specifiers, Philips Lighting, Lyon, France
JS = Jos Stuyfzand, Senior Creative Director, Philips Design, Eindhoven

APPENDIX C

This Appendix C includes:

- Prefigured Coding grid (reiterated from Appendix A)
- Open Codes (semantic attribution only)
- Clustering of Open Codes into Generative Subcategories
- Generative Propositions overview.

The Generative Propositions were extracted from Open Codes in their final form (as presented in Appendix B) and –unlike all coded materials so far- do not represent embody transcript text, having been elaborated and edited by the PhD researcher as a new synthesis thereof.

APPENDIX C: CHAPTER 6
CODING: GENERATIVE PROPOSITIONS
THE CONTEXT AND HISTORY OF CITY.PEOPLE.LIGHT

Open Codes:

Basics

6.1 Key outcome: what city.people.light generated

6.1.1 INSIGHTS / INTERVIEWS (HISTORY)

6.1.2 BRAND THEME / MULTIPURPOSE (HISTORY)

6.1.3 DESIGN / INSIGHTS / THOUGHT LEADERSHIP (HISTORY)

6.1.4 CROSSROADS DESIGN VS. RESEARCH (CONTEXT)

6.1.5 THOUGHT LEADERSHIP / URBAN CHALLENGES (HISTORY)

6.1.6 INSIGHTS / VISUALIZATION / INTERVIEWS (HISTORY)

6.1.7 DESIGNER / VISUALIZATION (CONTEXT)

Functional Knowledge

6.1.8 ROADMAP / INNOVATION LOOP / DESIGNER (CONTEXT)

6.1.9 VISUALIZATION / OWN COPYRIGHT (CONTEXT)

Monitoring Knowledge

6.1.10 INNOVATION / UNIQUENESS (HISTORY)

6.1.11 ARCHITECTS' APPROACH / MULTIPURPOSE (HISTORY)

Reflexive Knowledge

6.1.12 INNOVATION (CONTEXT)

6.1.13 BRAND THEME / NOT LEVERAGED (HISTORY)

6.1.14 NOT LEVERAGED / REFLEXIVE (CONTEXT)

6.1.15 BOOK (HISTORY)

6.1.16 BOOK / DISTRIBUTION (HISTORY)

6.1.17 THOUGHT LEADERSHIP / BRAND THEME (HISTORY)

6.1.18 DESIGN / THOUGHT LEADERSHIP (HISTORY)

6.1.19 THOUGHT LEADERSHIP / LEGACY (CONTEXT)

6.1.20 CRM / COMMUNITY (HISTORY)

6.1.21 COMMUNITIES (HISTORY)

6.2 Key performance indicators:
how the value of city.people.light outcome was measured

6.2.1 BUDGET MANAGEMENT (HISTORY)

6.2.2 ROADMAP / NOT LEVERAGED (HISTORY)

6.2.3 NPS / THOUGHT LEADERSHIP (HISTORY)

6.2.4 NPS (CONTEXT)

6.2.5 EDUCATIONAL / NOT LEVERAGED (CONTEXT)

6.2.6 ARCHITECTS' APPROACH / NOT LEVERAGED (HISTORY)

6.3 Perceived Points of uniqueness of city.people.light

6.3.1 UNIQUENESS / CRM / ROADMAP (CONTEXT)

6.3.2 UNIQUENESS (CONTEXT)

6.3.3 BRAND THEME / ARCHITECTS' APPROACH (HISTORY)

6.3.4 UNIQUENESS / LEADERSHIP (HISTORY)

6.3.5 UNIQUENESS (CONTEXT)

6.4 Educational unique value of city.people.light *(academic, applied)*

6.4.1 DESIGN / EDUCATIONAL (CONTEXT)

6.4.2 BOOK / EDUCATIONAL (HISTORY)

6.4.3 DESIGN / BOOK / EDUCATIONAL (HISTORY)

6.4.4 EDUCATIONAL (CONTEXT)

6.4.5 EDUCATIONAL (CONTEXT)

6.5 Financial Ownership

6.5.1 BUDGET MANAGEMENT (CONTEXT)

6.5.2 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)

6.5.3 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)

6.5.4 BUDGET MANAGEMENT (HISTORY)

6.5.5 BUDGET OWNERSHIP (HISTORY)

6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY)

6.6 Post-event / post-program applications

6.6.1 MARKETING OWNERSHIP / ROADMAP

6.6.2 NOT LEVERAGED (CONTEXT)

6.6.3 NOT LEVERAGED (CONTEXT)

6.6.4 CHAMPION (HISTORY)

6.6.5 DESIGN / BOOK / ROADMAP (HISTORY)

6.6.6 BOOK (CONTEXT)

6.6.7 BOOK (CONTEXT)

6.6.8 HORIZON 2 (CONTEXT)

6.6.9 NETWORKS / NOT LEVERAGED (CONTEXT)

6.6.10 DESIGN / ARCHITECTS' APPROACH / MARKETING (CONTEXT)

Futures

6.7 Innovation horizons *(Continuous innovation, disruptive innovation)*

6.7.1 HORIZON 2 / FUNCTIONAL / ROADMAP (CONTEXT)

6.7.2 HORIZON 3 / MONITORING / STRATEGY (CONTEXT)

6.7.3 SKETCHES / WILD CARD / HORIZON 3 (HISTORY)

6.7.4 HORIZON 3 / SCENARIOS (HISTORY)

6.7.5 HORIZON 3 / TECHNOLOGY (HISTORY)

6.7.6 DESIGN / TECHNOLOGY / HORIZON 1 (HISTORY)

6.7.7 STRATEGIC MARKETING / DESIGN / HORIZON 2 / 3 (HISTORY)

6.8 Structures *(Workshops, Matrix)*

6.8.1 MATRIX (HISTORY)

6.8.2 STRUCTURE (HISTORY)

6.8.3 MARKETING / TECHNOLOGY / ROADMAP (HISTORY)

6.8.4 MATRIX / DESIGN (HISTORY)

6.8.5 MATRIX / BOOK / DESIGN (HISTORY)

6.8.6 MATRIX (HISTORY)

6.8.7 MATRIX / VISUALIZATION / WORKSHOP (HISTORY)

6.9 Forecasting Rationale *(Falsifiable Forecasting, Genius Forecasting)*

6.9.1 DESIGN LEADERSHIP / MATRIX / STRUCTURE (CONTEXT)

6.9.2 DESIGN LEADERSHIP / UNIQUENESS / INTERVIEWS (HISTORY)

6.9.3 SPIN OFF'S (HISTORY)

6.9.4 DESIGN / STRUCTURE (CONTEXT)

6.10 Forecasting Techniques *(Generating, Integrating)*

6.10.1 BOOK / NORMATIVE (HISTORY)

6.11 Technology *(High Tech, High Design)*

6.11.1 TECHNOLOGY (CONTEXT)

6.11.2 DESIGN / DESIGN THINKING / CO-CREATION (CONTEXT)

6.11.3 TECHNOLOGY (CONTEXT)

6.11.4 TECHNOLOGY / HORIZON 3 (HISTORY)

6.11.5 INSIGHTS / TECHNOLOGY / DESIGN (HISTORY)

6.11.6 HIGH DESIGN / INSIGHT / TECHNOLOGY (HISTORY)

6.11.7 DESIGN / TRAINED JUDGEMENT / GENIUS FORECASTING (HISTORY)

6.11.8 DESIGN PROCESS / THOUGHT LEADERSHIP / MATRIX (HISTORY)

Product

6.12 Book *(Editorial Design, Distribution)*

6.12.1 BOOK (HISTORY)

6.12.2 BOOK / DISTRIBUTION (HISTORY)

6.12.3 SKETCHES / CONCEPT / NOT LEVERAGED (CONTEXT)

6.12.4 BOOK / SKETCHES (CONTEXT)

6.13 Storylines *(Narrative Practices, Para-scientific Structures)*

6.13.1 MATRIX / SCENARIO (HISTORY)

6.13.2 BRAND THEME / STORYTELLING (HISTORY)

6.13.3 MARKETING / COMMUNICATION / MULTIPURPOSE (HISTORY)

6.13.4 DESIGN / THOUGHT LEADERSHIP / BRAND THEME (HISTORY)

6.13.5 ROADMAP / THOUGHT LEADERSHIP / STORYTELLING (HISTORY)

6.14 Concepts (Physical objects, social spaces)

6.14.1 DESIGN / MOCK UP / NOT LEVERAGED (HISTORY)

6.14.2 SKETCHES / MOCK UP / PROCESS / DESIGN (CONTEXT)

6.14.3 DESIGN PROCESS / DESIGN THINKING (HISTORY)

6.15 Symbols (Creative Leadership, Commercial Focus)

6.15.1 HIGH DESIGN / CREATIVE LEADERSHIP (HISTORY)

6.15.2 BOOK / WORKSHOP / DESIGN (CONTEXT)

Process

6.16 Relationship Management *(Community versus CRM)*

6.16.1 WORKSHOP / MULTIDISCIPLINARY / BOOK (HISTORY)

6.16.2 CRM / TRUST (CONTEXT)

6.16.3 COMMUNITY / MULTIDISCIPLINARY (CONTEXT)

6.16.4 CRM / SALES / DESIGN (CONTEXT)

6.16.5 COMMUNITY / SOCIAL MEDIA (CONTEXT)

6.17 Openness *(Co-creation, Contribution - for professional stakeholders)*

6.17.1 DESIGNER / INTERVIEW / INSIGHTS / CO-CREATION (INSIGHTS)

6.17.2 WORKSHOP / CONTRIBUTION / CONCEPT (HISTORY)

6.17.3 SKETCHES / CO-CREATION / DESIGNER (CONTEXT)

6.17.4 INNOVATION LOOP / MULTIDISCIPLINARY / CONTRIBUTION (CONTEXT)

6.18 Participation *(Participatory, Normative – for non professional stakeholders)*

6.18.1 PARTICIPATION / WORKSHOPS / DESIGNER (CONTEXT)

6.18.2 PARTICIPATION / DESIGN (CONTEXT)

6.18.3 PARTICIPATION (CONTEXT)

6.19 Networks *(programmer, switcher)*

6.19.1 SWITCHER (CONTEXT)

6.19.2 PARTICIPATION / SWITCHER (CONTEXT)

6.19.3 INNOVATION LOOP / DESIGNER (CONTEXT)

6.19.4 BARTER (CONTEXT)

6.19.5 BARTER / DESIGN (HISTORICAL)

6.19.6 COMMUNITIES / SWITCHER (CONTEXT)

6.19.7 SWITCHING (CONTEXT)

6.19.8 DESIGN / SWITCHER / TRUST (HISTORY)

6.19.9 SWITCHER / NOT LEVERAGED (CONTEXT)

6.19.10 MARKETING / SWITCHER (CONTEXT)

Generative Subcategories

Generative Subcategory 6.1:

6.1 Generative Proposition (5):

Design takes the lead in creating insights by processing expert interviews, and then presenting such insights visually, in order to challenge the current status quo of High Tech.

6.1.1 INSIGHTS / INTERVIEWS (HISTORY)
6.1.6 INSIGHTS / VISUALIZATION / INTERVIEWS (HISTORY)
6.11.5 INSIGHTS / TECHNOLOGY / DESIGN (HISTORY)

Generative Subcategory 6.2:

6.2 Generative Proposition (4):

A storytelling *brand theme* is created, as a multipurpose approach to target architects, in order to generate both innovation assets and PR visibility. This leads to the definition of a distinctive, however managerially underleveraged, specific “Architects’ Approach”.

6.1.2 BRAND THEME / MULTIPURPOSE (HISTORY)
6.1.13 BRAND THEME / NOT LEVERAGED (HISTORY)
6.3.3 BRAND THEME / ARCHITECTS’ APPROACH (HISTORY)
6.13.2 BRAND THEME / STORYTELLING (HISTORY)

Generative Subcategory 6.3:

6.3 Generative Proposition (5):

Design creates a thought leadership foresight framework to successfully study, anticipate and leverage a deep understanding of urban change, involving both senior and younger architects within major architectural firms, in order to envision innovation solutions that will happen over time. Student involvement is not part of the approach.

6.1.3 DESIGN / INSIGHTS / THOUGHT LEADERSHIP (HISTORY)
6.1.18 DESIGN / THOUGHT LEADERSHIP (HISTORY)
6.4.1 DESIGN / EDUCATIONAL (CONTEXT)
6.4.3 DESIGN / BOOK / EDUCATIONAL (HISTORY)
6.6.5 DESIGN / BOOK / ROADMAP (HISTORY)
6.6.10 DESIGN / ARCHITECTS’ APPROACH / MARKETING (CONTEXT)
6.7.6 DESIGN / TECHNOLOGY / HORIZON 1 (HISTORY)
6.9.4 DESIGN / STRUCTURE (CONTEXT)
6.11.2 DESIGN / DESIGN THINKING / CO-CREATION (CONTEXT)
6.11.7 DESIGN / TRAINED JUDGEMENT / GENIUS FORECASTING (HISTORY)

6.13.4 DESIGN / THOUGHT LEADERSHIP / BRAND THEME (HISTORY)
6.14.1 DESIGN / MOCK UP / NOT LEVERAGED (HISTORY)
6.19.8 DESIGN / SWITCHER / TRUST (HISTORY)

Generative Subcategory 6.4:

6.4 Generative Proposition (5):

Design generates a program with hybrid elements from R&D (research) and strategic marketing, progressively opening it up in its second edition to external stakeholders.

6.1.4 CROSSROADS DESIGN VS. RESEARCH (CONTEXT)
6.5.6 CROSSROADS MARKETING VS. DESIGN (HISTORY)

Generative Subcategory 6.5:

6.5 Generative Proposition (3):

Authentic thought leadership is generated for the benefit of the business unit through a self-generated program, beyond what can be purchased as outsourced service.

6.1.5 THOUGHT LEADERSHIP / URBAN CHALLENGES (HISTORY)
6.1.17 THOUGHT LEADERSHIP / BRAND THEME (HISTORY)
6.1.19 THOUGHT LEADERSHIP / LEGACY (CONTEXT)

Generative Subcategory 6.6:

6.6 Generative Proposition (5):

Design enables an experience of “virtual co-creation” by means of a process that connects insights generated beforehand from expert interviews, to inspiring multimedia visualizations.

6.1.7 DESIGNER / VISUALIZATION (CONTEXT)
6.17.1 DESIGNER / INTERVIEW / INSIGHTS CO-CREATION (HISTORY)

Generative Subcategory 6.7:

6.7 Generative Proposition (3):

Product roadmaps are generated by means of innovation process loops, where storytelling is key to improve the brand perception with stakeholders.

6.1.8 ROADMAP / INNOVATION LOOP / DESIGNER (CONTEXT) (Functional)
6.2.2 ROADMAP / NOT LEVERAGED (HISTORY)
6.13.5 ROADMAP / THOUGHT LEADERSHIP / STORYTELLING (HISTORY)

Generative Subcategory 6.8:

6.8 Generative Proposition (3):

Visual content as generated and published within the program is copyright-free for re-use within spin off projects.

6.1.9 VISUALIZATION / OWN COPYRIGHT (CONTEXT) (Functional)

Generative Subcategory 6.9:

6.9 Generative Proposition (2):

The program identifies new emerging needs, enabling a legacy in product leadership. It is a natural condition of innovation to work in the fuzzy front.

6.1.10 INNOVATION / UNIQUENESS (HISTORY) (Monitoring)
6.1.12 INNOVATION (CONTEXT) (Reflexive)

Generative Subcategory 6.10:

6.10 Generative Proposition (3):

The program enables connecting to key urban design stakeholders generating PR, innovation and knowledge sharing benefits, establishing an “Architects’ Approach” *brand theme*. Suboptimal conversion into concrete impact is due to company conditions.

6.1.11 ARCHITECTS’ APPROACH / MULTIPURPOSE (HISTORY) (Monitoring)
6.2.6 ARCHITECTS’ APPROACH / NOT LEVERAGED (HISTORY)

Generative Subcategory 6.11:

6.11 Generative Proposition (4):

The book captures all relevant knowledge generated by the program at visionary and theoretical levels, enabling its sharing with wider audiences (e.g. students), taking a central role as communication tool and as reference for marketing in terms of dissemination and valorization, in spite of its limited distribution.

6.1.15 BOOK (HISTORY)
6.1.16 BOOK / DISTRIBUTION (HISTORY)
6.4.2 BOOK / EDUCATIONAL (HISTORY)
6.6.6 BOOK (CONTEXT)
6.6.7 BOOK (CONTEXT)
6.10.1 BOOK / NORMATIVE (HISTORY)
6.12.1 BOOK (HISTORY)
6.12.2 BOOK / DISTRIBUTION (HISTORY)
6.12.4 BOOK / SKETCHES (CONTEXT)
6.15.2 BOOK / WORKSHOP / DESIGN (CONTEXT)

Generative Subcategory 6.12:

6.12 Generative Proposition (4):

By means of thought leadership, media recognition and continuity, the program builds a communal relationship of trust with stakeholders. Within the program, sales teams act as support only, without directly pursuing sales.

6.1.20 CRM / COMMUNITY (HISTORY)
6.16.2 CRM / TRUST (CONTEXT)
6.16.4 CRM / SALES / DESIGN (CONTEXT)

Generative Subcategory 6.13:

6.13 Generative Proposition (3):

The program is a multidisciplinary platform where existing communities of practice and professional networks of urbanists, landscape designers, scientists, psychologists and more can connect. The platform in itself is no community.

6.1.21 COMMUNITIES (HISTORY)
6.16.3 COMMUNITY / MULTIDISCIPLINARY (CONTEXT)
6.16.5 COMMUNITY / SOCIAL MEDIA (CONTEXT)
6.19.6 COMMUNITIES / SWITCHER (CONTEXT)

Generative Subcategory 6.14:

6.14 Generative Proposition (5):

Budget ownership is with Philips Lighting (the corporate business unit), while ownership being also claimed as own investment by Philips Design (the service unit). The program has unconventional budget management requirements and practices. Also, the program has unclear and non-continuous budget allocation.

6.2.1 BUDGET MANAGEMENT (HISTORY)
6.5.1 BUDGET MANAGEMENT (CONTEXT)
6.5.2 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)
6.5.3 BUDGET OWNERSHIP / MANAGEMENT (HISTORY)
6.5.4 BUDGET MANAGEMENT (HISTORY)
6.5.5 BUDGET OWNERSHIP (HISTORY)

Generative Subcategory 6.15:

6.15 Generative Proposition (1):

Net Promoter Score is the reference performance measurement within ancillary contextual projects based on city.people.light principles. Thought leadership over a certain period is one of the program objectives.

6.2.3 NPS / THOUGHT LEADERSHIP (HISTORY)
6.2.4 NPS (CONTEXT)

Generative Subcategory 6.16:

6.16 Generative Proposition (3):

The program has an apparent educational role in teaching stakeholders how to perform lighting design, however this constituency is not measured in terms of performance assessment.

6.2.5 EDUCATIONAL / NOT LEVERAGED (CONTEXT)
6.4.4 EDUCATIONAL (CONTEXT)
6.4.5 EDUCATIONAL (CONTEXT)

Generative Subcategory 6.17:

6.17 Generative Proposition (3):

The program is unique in addressing professional stakeholders and it enables improvements in the portfolio and then in the relationships, resulting in perceived leadership for the corporate business unit.

6.3.1 UNIQUENESS / CRM / ROADMAP (CONTEXT)
6.3.2 UNIQUENESS (CONTEXT)
6.3.4 UNIQUENESS / LEADERSHIP (HISTORY)
6.3.5 UNIQUENESS (CONTEXT)

Generative Subcategory 6.18:

6.18 Generative Proposition (4):

Strategic Marketing owns and / or leverages the program, integrating benefits from viewpoint of long-term innovation (Horizon 2 and 3), media exposure and CRM.

6.6.1 MARKETING OWNERSHIP / ROADMAP (HISTORY)
6.7.7 STRATEGIC MARKETING / DESIGN / HORIZON 2 / 3 (HISTORY)
6.19.10 MARKETING / SWITCHER (CONTEXT)
6.13.3 MARKETING / COMMUNICATION / MULTIPURPOSE (HISTORY)

Generative Subcategory 6.19:

6.19 Generative Proposition (3):

The program output is abstract, therefore non-actionable, challenging and difficult to implement and leverage both in follow up applicative projects as in corporate strategy context.

6.6.2 NOT LEVERAGED (CONTEXT)
6.6.3 NOT LEVERAGED (CONTEXT)
6.6.9 NOT LEVERAGED / NETWORKS (CONTEXT)
6.1.14 NOT LEVERAGED / REFLEXIVE (CONTEXT) (Reflexive)

Generative Subcategory 6.20:

6.20 Generative Proposition (3):

In order to guarantee its continuity over time, the program needs an individual "champion" to lobby within the corporate business unit.

6.6.4 CHAMPION (HISTORY)

Generative Subcategory 6.21:

6.21 Generative Proposition (5):

The program addresses urban futures beyond lighting design. Its findings could be both generated or be integrated within internal visual trend analysis reporting (2-3 years aesthetic forecast), managed by design teams within the service unit organization.

6.6.8 HORIZON 2 (CONTEXT)
6.7.1 HORIZON 2 / FUNCTIONAL / ROADMAP (CONTEXT)

Generative Subcategory 6.22:

6.22 Generative Proposition (4):

The program addresses strategic future challenges on the longer term, beyond current production paradigms, (reflexively) challenging the corporate organization.

6.7.2 HORIZON 3 / MONITORING / STRATEGY (CONTEXT)
6.7.4 HORIZON 3 / SCENARIOS (HISTORY)
6.7.5 HORIZON 3 / TECHNOLOGY (HISTORY)

Generative Subcategory 6.23:

6.23 Generative Proposition (4):

The program delivers sketches to visualize participants' ideas, sometimes beyond current feasibility ("what if" wild cards). Sketches are the result of co-creative processes where enabling conditions are provided. Sketches might prove ineffective when translated into temporary mock-ups or when presented to management audiences.

6.7.3 SKETCHES / WILD CARD / HORIZON 3 (HISTORY)
6.12.3 SKETCHES / CONCEPT / NOT LEVERAGED (CONTEXT)
6.14.2 SKETCHES / MOCK UP / PROCESS / DESIGN (CONTEXT)
6.17.3 SKETCHES / CO-CREATION / DESIGNER (CONTEXT)

Generative Subcategory 6.24:

6.24 Generative Proposition (4):

The matrix is a multilayered, integrative, scenario tool, based on socio-cultural focus and multidisciplinary complexity (marketing, technology, architectural design). It requires an

interpretative effort and it offers a reference to classify sketches. It has long-term validity.

6.8.1 MATRIX (HISTORY)
6.8.4 MATRIX / DESIGN (HISTORY)
6.8.5 MATRIX / BOOK / DESIGN (HISTORY)
6.8.6 MATRIX (HISTORY)
6.8.7 MATRIX / VISUALIZATION / WORKSHOP (HISTORY)
6.13.1 MATRIX / SCENARIO (HISTORY)

Generative Subcategory 6.25:

6.25 Generative Proposition (2):

The program is based on personal (informal) motivations to contribute by participants, more than on a (formal) structure in knowledge management terms.

6.8.2 STRUCTURE (HISTORY)

Generative Subcategory 6.26:

6.26 Generative Proposition (4):

Workshops are designed and executed in order to integrate trend knowledge (marketing, design, socio-cultural) while connecting stakeholders, resulting in the delivery of concepts. Young talent is involved.

6.8.3 WORKSHOP / TECHNOLOGY / ROADMAP (HISTORY)
6.16.1 WORKSHOP / MULTIDISCIPLINARY / BOOK (HISTORY)
6.17.2 WORKSHOP / CONTRIBUTION / CONCEPT (HISTORY)

Generative Subcategory 6.27:

6.27 Generative Proposition (5):

Socio-cultural information and people focus are required in the program. Keeping the dialog with experts is central. A visionary designer and a sociologist might suffice to structure the information, replacing workshops with individual “trial and error”.

6.9.1 DESIGN LEADERSHIP / MATRIX / STRUCTURE (CONTEXT)
6.9.2 DESIGN LEADERSHIP / UNIQUENESS / INTERVIEWS (HISTORY)

Generative Subcategory 6.28:

6.28 Generative Proposition (2):

Spin offs based on the methodology are designed and executed, according to diverse interpretations of the program blueprint.

6.9.3 SPIN OFF’S (HISTORY)

Generative Subcategory 6.29:

6.29 Generative Proposition (3):

Technology as an enabler and a source of inspiration is an important constituency of the program. Currently existing technology is however not a limiting factor in terms of program feasibility or idea selection.

6.11.1 TECHNOLOGY (CONTEXT)
6.11.3 TECHNOLOGY (CONTEXT)
6.11.4 TECHNOLOGY / HORIZON 3 (HISTORY)

Generative Subcategory 6.30:

6.30 Generative Proposition (5):

The program is based on High Design principles. High Design elevates “design” to a higher master planning role than product design, integrating technology, sociology and other knowledge, in order to generate insights and experience flows

6.11.6 HIGH DESIGN / INSIGHT / TECHNOLOGY (HISTORY)
6.15.1 HIGH DESIGN / CREATIVE LEADERSHIP (HISTORY)

Generative Subcategory 6.31:

6.31 Generative Proposition (5):

The value of “design” within the program (as expressed by Philips Design, the service unit) lies in its intellectual capital (e.g., relating to thought leading interviewees, steering the process beyond immediate applications, consistently integrating workflows within existing tools to achieve continuity with the past).

6.11.8 DESIGN PROCESS / THOUGHT LEADERSHIP / MATRIX (HISTORY)
6.14.3 DESIGN PROCESS / DESIGN THINKING (HISTORY)

Generative Subcategory 6.32:

6.32 Generative Proposition (2):

Innovation loops based on multidisciplinary interaction with stakeholders are key. The program has an important role within the management of these loops.

6.17.4 INNOVATION LOOP / MULTIDISCIPLINARY / CONTRIBUTION (CONTEXT)
6.19.3 INNOVATION LOOP / DESIGNER (CONTEXT)

Generative Subcategory 6.33:

6.33 Generative Proposition (3):

The program is designed for business-to-business purposes, therefore it does not include any citizen, student or open participation. Although such participation might be

desirable, interactions with business stakeholders represent the core value of the program.

6.18.1 PARTICIPATION / WORKSHOPS / DESIGNER (CONTEXT)
6.18.2 PARTICIPATION / DESIGN (CONTEXT)
6.18.3 PARTICIPATION (CONTEXT)
6.19.2 PARTICIPATION / SWITCHER (CONTEXT)

Generative Subcategory 6.34:

6.34 Generative Proposition (3):

The program is based on careful selection of participating stakeholders within communities of practice and professional circles. Such contacts are not consolidated into own networks by any program methodology.

6.19.1 SWITCHER (CONTEXT)
6.19.7 SWITCHING (CONTEXT)
6.19.9 SWITCHER / NOT LEVERAGED (CONTEXT)

Generative Subcategory 6.35:

6.35 Generative Proposition (4):

The program rewards its participating stakeholders on the basis of barter in terms of knowledge (“new thinking”) and of professional recognition (affiliation to a perceived think tank).

6.19.4 BARTER (CONTEXT)
6.19.5 BARTER / DESIGN (HISTORY)

APPENDIX C: CHAPTER 7
CODING: GENERATIVE PROPOSITIONS
COMMUNICATION STRUCTURAL MOMENT OF CITY.PEOPLE.LIGHT: BOOK

Open Codes:

BASICS

7.1 Key outcome: what city.people.light generated

7.1.1 BOOK

7.1.2 INSIGHTS / THOUGHT LEADERSHIP

7.1.3 SKETCHES / MOCK UP / DESIGNER:

7.1.4 BOOK / WORKSHOP

7.1.5 BOOK / WORKSHOP

Functional Knowledge

7.1.6 ROADMAP

7.1.7 CRM

7.1.8 BOOK / NOT LEVERAGED

Monitoring Knowledge

7.1.9 BOOK / OUTSIDE-IN / INTERVIEWS

7.1.10 MONITORING

Reflexive Knowledge

7.1.11 DESIGN / REFLEXIVE

7.1.12 REFLEXIVE

7.2 Key performance indicators:
how the value of city.people.light outcome was measured

7.2.1 BOOK / MULTIPURPOSE / OUTSIDE-IN

7.2.2 ROADMAP / DEADLINES

7.2.3 ROADMAP / PR VISIBILITY

7.2.4 ROADMAP / INSIGHTS / NPS

7.3 Perceived Points of uniqueness of city.people.light

7.3.1 BRAND THEME

7.3.2 UNIQUENESS / ARCHITECTS' APPROACH

7.4 Educational unique value of city.people.light *(academic, applied)*

7.4.1 MATRIX / ACADEMIC KNOWLEDGE

7.4.2 EDUCATIONAL

7.5 Financial Ownership

7.5.1 BUDGET MANAGEMENT

7.5.2 MARKETING OWNERSHIP

7.5.3 MARKETING OWNERSHIP

7.5.4 MARKETING OWNERSHIP

7.5.5 MARKETING OWNERSHIP / INNOVATION LOOP

7.6 Post-event / post-program applications

7.6.1 INNOVATION LOOP / PR VISIBILITY

FUTURES

7.7 Innovation horizons *(Continuous innovation, disruptive innovation)*

7.7.1 FORECAST VALIDITY

7.7.2 FORECAST VALIDITY

Horizon 1

7.7.3 DESIGN / ROADMAP / HORIZON 1

7.7.4 BOOK / FORECAST VALIDITY

Horizon 2

7.7.5 SKETCHES / HORIZON 2

Horizon 3

7.7.6 HORIZON 3 / TECHNOLOGY

7.7.7 HORIZON 3 / CONCEPT

7.7.8 SKETCHES / HORIZON 3

7.8 Structures *(Workshops, Matrix)*

7.8.1 MATRIX

7.9 Forecasting Rationale *(Falsifiable Forecasting, Genius Forecasting)*

7.9.1 INTEGRATING / GENIUS FORECASTING

7.9.2 FALSIFIABLE FORECASTING

7.10 Forecasting Techniques *(Generating, Integrating)*

7.10.1 GENERATING

7.10.2 INTEGRATING

7.10.3 INTEGRATING

7.11 Technology *(High Tech, High Design)*

7.11.1 TECHNOLOGY

Product

7.12 Book *(Editorial Design, Distribution)*

7.12.1 BOOK DESIGN / SKETCHES

7.12.2 BOOK / DISTRIBUTION

7.12.3 BOOK / DISTRIBUTION

7.13 Storylines *(Narrative Practices, Para-scientific Structures)*

7.13.1 STORYLINE

7.13.2 STORYLINE / EDUCATIONAL

7.14 Concepts *(Physical objects, social spaces)*

7.14.1 MOCK UPS / PHYSICAL OBJECTS

7.14.2 MOCK UPS

7.15 Symbols *(Creative Leadership, Commercial Focus)*

7.15.1 UNIQUENESS / CREATIVE LEADERSHIP

Process

***7.16 Relationship Managemen*t** *(Community versus CRM)*

7.16.1 CRM

7.17 Openness *(Co-creation, Contribution - for professional stakeholders)*

7.17.1 CO-CREATION

7.17.2 CO-CREATION

7.17.3 SKETCHES / CONTRIBUTION

7.18 *Participation* *(Participatory, Normative – for non professional stakeholders)*

7.18.1 PARTICIPATORY

7.18.2 COMMUNITY / DESIGNER

7.19 Networks *(programmer, switcher)*

7.19.1 DESIGN / NETWORKS / FORECAST VALIDITY

7.19.2 BARTER

Generative Subcategories

Generative Subcategory 7.1:

7.1 Generative Proposition (5):

The book is designed as a solid reference at a higher intellectual level, incorporating multi-faceted insights from thought leaders' interviews (outside-in approach) with a critical mass of content generated in workshops. The book is distributed in limited quantities as a precise marketing strategy. The book is validated over time.

7.1.1 BOOK
7.1.4 BOOK / WORKSHOP
7.1.5 BOOK / WORKSHOP
7.1.8 BOOK / NOT LEVERAGED
7.1.9 BOOK / OUTSIDE-IN / INTERVIEWS
7.2.1 BOOK / MULTIPURPOSE / OUTSIDE-IN
7.7.4 BOOK / FORECAST VALIDITY
7.12.1 BOOK DESIGN / SKETCHES
7.12.2 BOOK / DISTRIBUTION
7.12.3 BOOK / DISTRIBUTION

Generative Subcategory 7.2:

7.2 Generative Proposition (4):

The program delivers insights and trends, to be leveraged by segment marketing to generate future propositions.

7.1.2 INSIGHTS / THOUGHT LEADERSHIP

Generative Subcategory 7.3:

7.3 Generative Proposition (4):

Sketches are produced in collective context with facilitation, and are mission-critical to gain insights both in the vision of individual designers as well as in future developments. Sketches represent the barter value for the corporate business unit.

7.1.3 SKETCHES / MOCK UP / DESIGNER
7.7.5 SKETCHES / HORIZON 2
7.7.8 SKETCHES / HORIZON 3
7.17.3 SKETCHES / CONTRIBUTION

Generative Subcategory 7.4:

7.4 Generative Proposition (3):

The program is designed with the confidence to generate at least two innovative product propositions as part of the corporate business unit roadmap. This is translated in a specific KPI.

7.1.6 ROADMAP
7.2.2 ROADMAP / DEADLINES
7.2.3 ROADMAP / PR VISIBILITY
7.2.4 ROADMAP / INSIGHTS / NPS

Generative Subcategory 7.5:

7.5 Generative Proposition (5):

The book is distributed and received within the business unit as an opportunity to improve corporate profiling and customer relationships.

7.1.7 CRM
7.16.1 CRM

Generative Subcategory 7.6:

7.6 Generative Proposition (4):

The monitoring and reflexive constituencies are an important part of the program.

7.1.10 MONITORING

Generative Subcategory 7.7:

7.7 Generative Proposition (5):

Design (Philips Design, the service unit) provided support in managing the content of the book, in order to selectively convert part of it into product propositions. In the fast paced sector of lighting design, the book could be an everyday reference.

7.1.11 DESIGN / REFLEXIVE
7.7.3 DESIGN / ROADMAP / HORIZON
7.19.1 DESIGN / NETWORKS / FORECAST VALIDITY

Generative Subcategory 7.8:

7.8 Generative Proposition (5):

The book helps internal business unit audience to reflect and mature their positions, however this happens on the basis of intuition only.

7.1.12 REFLEXIVE

Generative Subcategory 7.9:

7.9 Generative Proposition (3):

The program offers a great *brand theme*, to be leveraged both inside and outside of the business unit and of the corporation.

7.3.1 BRAND THEME
7.6.1 BRAND THEME / INNOVATION LOOP / PR VISIBILITY

Generative Subcategory 7.10:

7.10 Generative Proposition (5):

The book is a source of imitation by competitors, who use it as catalogue reference to copy concepts and develop them themselves. This is seen as a proof of leadership and resilience of the approach, which remains unique to the point of being perceived as a potential sub-brand.

7.3.2 UNIQUENESS / ARCHITECTS' APPROACH
7.15.1 UNIQUENESS / CREATIVE LEADERSHIP

Generative Subcategory 7.11:

7.11 Generative Proposition (4):

During the interview phase and the workshop execution phase, the matrix structures analytical, semi-academic, outside-in knowledge that is critical to the program, while at the same time enabling tracking and monitoring the process.

7.4.1 MATRIX / ACADEMIC KNOWLEDGE

7.8.1 MATRIX

Generative Subcategory 7.12:

7.12 Generative Proposition (2):

The program does not aim at educating stakeholders. The aim is instead intended to show them possibilities in lighting design.

7.4.2 EDUCATIONAL

Generative Subcategory 7.13:

7.13 Generative Proposition (5):

Budget requirements for a program that includes the book, the interviews and logistic costs for a launch event are optimal, when considering the program-derived benefits.

7.5.1 BUDGET MANAGEMENT

Generative Subcategory 7.14:

7.14 Generative Proposition (4):

Strategic marketing and product management take the initiative to centrally create, (re)generate and steer the program, on the basis of existing assets when available, as their key owners.

7.5.2 MARKETING OWNERSHIP
7.5.3 MARKETING OWNERSHIP
7.5.4 MARKETING OWNERSHIP
7.5.5 MARKETING OWNERSHIP / INNOVATION LOOP

Generative Subcategory 7.15:

7.15 Generative Proposition (5):

The book and its foresight content have a validity of 5 – 10 years ahead in time from the moment of conception and publication. At the time of revising the program, the last edition of book with previous content is a reference and an asset.

7.7.1 FORECAST VALIDITY
7.7.2 FORECAST VALIDITY

Generative Subcategory 7.16:

7.16 Generative Proposition (4):

The program delivers concepts that represent visions of further future (Horizon 3), where contemporary technology is not sufficient for conversion into products.

7.7.6 HORIZON 3 / TECHNOLOGY
7.7.7 HORIZON 3 / CONCEPT

Generative Subcategory 7.17:

7.17 Generative Proposition (4):

The matrix provides a structure that can be revived over time by means of filtering new insights. The resulting visions can be valid up to 10 years.

7.9.2 FALSIFIABLE FORECASTING

Generative Subcategory 7.18:

7.18 Generative Proposition (1):

The program can be initiated or steered without a clear vision of its final outcome at the moment of its conception.

7.10.1 GENERATING

Generative Subcategory 7.19:

7.19 Generative Proposition (5):

In order to integrate foresight conclusions based on expert interviews, urban scenarios and concepts, personal ownership by the research director / author is preferable. The book requires thematic saturation to be reached in its related cycle of workshops prior to its editorial creation.

7.9.1 INTEGRATING / GENIUS FORECASTING
7.10.2 INTEGRATING
7.10.3 INTEGRATING

Generative Subcategory 7.20:

7.20 Generative Proposition (4):

Existing technology and tools are not sufficient to convert workshop mock-ups into feasible products.

7.11.1 TECHNOLOGY

Generative Subcategory 7.21:

7.21 Generative Proposition (1):

The program has the ambition to demonstrate how lighting might trigger urban storylines. The program itself has a general storyline: “Better city for people”.

7.13.1 STORYLINE

7.13.2 STORYLINE / EDUCATIONAL

Generative Subcategory 7.22:

7.22 Generative Proposition (4):

The visual end-result of workshop concepts is determined and driven by mock-ups realized with existing technology.

7.14.1 MOCK UPS / PHYSICAL OBJECTS
7.14.2 MOCK UPS

Generative Subcategory 7.23:

7.23 Generative Proposition (5):

Sketches of future solutions are the result of co-creative dynamics, as being conceived and drawn by participating stakeholders.

7.17.1 CO-CREATION
7.17.2 CO-CREATION

Generative Subcategory 7.24:

7.24 Generative Proposition (2):

As lighting is a public issue, the program might include wider audiences and additional stakeholders, beyond professional communities of practice.

7.18.1 PARTICIPATION

Generative Subcategory 7.25:

7.25 Generative Proposition (4):

A relevant professional community for the program might include architects, landscape architects and interior designers, covering the expertise required in the “built environment” professional landscape.

7.18.2 COMMUNITY / DESIGNER

Generative Subcategory 7.26:

7.26 Generative Proposition (2):

The program is offered as a valuable tool.

7.19.2 BARTER

APPENDIX C: CHAPTER 8
CODING: GENERATIVE PROPOSITIONS
CREATION PROCESS PRACTICE MOMENT OF CITY.PEOPLE.LIGHT: WORKSHOP

Open Codes:

Basics

8.1 Key outcome: what city.people.light generated

8.1.1 THOUGHT LEADERSHIP / FUNCTIONAL KNOWLEDGE

Functional Knowledge

8.1.2 WORKSHOP / ROADMAP CONVERSION / FREESTREET

8.1.3 WORKSHOP / ROADMAP CONVERSION

8.1.4 WORKSHOP / INSIGHTS / BEYOND FUNCTIONAL

8.1.5 WORKSHOP / ROADMAP / DESIGN

8.1.6 ROADMAP / FREESTREET / DECLUTTERING

8.1.7 ROADMAP / INSIGHTS / FREESTREET

8.1.8 DESIGN / ROADMAP

Monitoring Knowledge

8.1.9 WORKSHOP / MONITORING

8.1.10 MATRIX / WORKSHOP / INNOVATION LOOP / MONITORING

8.1.11 MONITORING / GENIUS FORECASTING

Reflexive Knowledge

8.1.12 REFLEXIVE / SALES

8.2 Key performance indicators:
how the value of city.people.light outcome was measured

8.2.1 MULTIPURPOSE / BRAND THEME

8.2.2 DESIGN / THOUGHT LEADERSHIP

8.2.3 MULTIPURPOSE / MOCK UPS

8.2.4 NPS / KPI / NETWORKS

8.2.5 NPS / CRM / WORKSHOP

8.2.6 NPS

8.3 Perceived Points of uniqueness of city.people.light

8.3.1 MULTIDISCIPLINARY

8.3.2 DESIGN / MULTIPURPOSE

8.3.3 WORKSHOP / BARTER / SWITCHER

8.3.4 EDUCATIONAL / UNIQUENESS

8.3.5 BRAND THEME

8.3.6 BRAND THEME / CONTINUITY IN TIME

8.3.7 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD

8.3.8 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD

8.3.9 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD

8.4 Educational unique value of city.people.light *(academic, applied)*

8.4.1 EDUCATIONAL / MULTIPURPOSE / DESIGN

8.4.2 EDUCATIONAL / WORKSHOP

8.4.3 MATRIX

8.4.4 COMMUNITY / DESIGNER

8.4.5 TECHNOLOGY / EDUCATIONAL

8.4.6 WORKSHOP / MULTIPURPOSE / WROCLAW

8.4.7 EDUCATIONAL / WORKSHOP / MATRIX

8.4.8 EDUCATIONAL / DESIGNER

8.5 Financial Ownership

8.5.1 BUDGET MANAGEMENT

8.5.2 MARKETING OWNERSHIP / NETWORKS / WORKSHOP

8.5.3 MARKETING OWNERSHIP / CRM

8.5.4 DESIGN / BUDGET MANAGEMENT / CONTINUITY IN TIME

8.5.5 MARKETING / CONTINUITY IN TIME / WORKSHOP

8.5.6 BUDGET MANAGEMENT / MARKETING / CONTINUITY IN TIME

8.5.7 MARKETING OWNERSHIP

8.5.8 WORKSHOP / MARKETING OWNERSHIP

8.6 Post-event / post-program applications

8.6.1 NOT LEVERAGED

8.6.2 WORKSHOP / GENIUS FORECASTING

8.6.3 SWITCHER / BRAND THEME

8.6.4 BRAND THEME / CRM / NETWORKS

8.6.5 WORKSHOP / MARKETING / WROCLAW

8.6.6 CRM

Futures

8.7 Innovation horizons *(Continuous innovation, disruptive innovation)*

Horizon 1

8.7.1 ROADMAP / FREESTREET

Horizon 2

8.7.2 WORKSHOP / INSIGHTS / TECHNOLOGY / HORIZON 2

Horizon 3

8.7.3 SKETCHES / HORIZON 3

8.7.4 HORIZON 3

8.8 **Structures** *(Workshops, Matrix)*

8.8.1 MATRIX / TECHNOLOGY

8.8.2 WORKSHOP / MOCK UPS

8.8.3 MATRIX / FALSIFIABLE

8.8.4 MATRIX / DESIGN PROCESS

8.8.5 WORKSHOP / MATRIX / BARTER

8.8.6 MATRIX / DESIGN / WORKSHOP

8.8.7 MATRIX / SOCIO-CULTURAL

8.8.8 MATRIX / LEVERAGED

8.8.9 MATRIX / LEVERAGED

8.8.10 THOUGHT LEADERSHIP / WORKSHOP / VISUALIZATION

8.9 Forecasting Rationale *(Falsifiable Forecasting, Genius Forecasting)*

8.9.1 WORKSHOP / FALSIFIABLE

8.9.2 WORKSHOP / GENIUS FORECASTING

8.10 Forecasting Techniques *(Generating, Integrating)*

8.10.1 INTEGRATING / DESIGNER

8.10.2 INTEGRATING / INTERVIEWS / WORKSHOP

8.10.3 SKETCHES / SCENARIO / GENERATING / WORKSHOP

8.11 Technology *(High Tech, High Design)*

8.11.1 TECHNOLOGY / REFLEXIVE

8.11.2 TECHNOLOGY / HIGH DESIGN

8.11.3 HIGH DESIGN

8.11.4 HIGH DESIGN / MARKETING

8.11.5 DESIGN / DESIGN PROCESS

8.11.6 DESIGN / DESIGN PROCESS / TECHNOLOGY

8.11.7 DESIGN / DESIGN THINKING

8.11.8 TECHNOLOGY

PRODUCT

8.12 Book *(Editorial Design, Distribution)*

8.13 Storylines *(Narrative Practices, Para-scientific Structures)*

8.14 Concepts *(Physical objects, social spaces)*

8.15 Symbols *(Creative Leadership, Commercial Focus)*

PROCESS

8.16 Relationship Management *(Community versus CRM)*

8.16.1 CRM / SWITCHER / WORKSHOP

8.16.2 MARKETING / SWITCHER / DESIGNER

8.16.3 MARKETING / SWITCHER / WORKSHOP

8.16.4 MARKETING / SWITCHER

8.16.5 COMMUNITY / SOCIAL MEDIA

8.16.6 MARKETING / SWITCHER

8.16.7 COMMUNITY / WORKSHOP

8.16.8 COMMUNITY / MATRIX / WORKSHOP

8.16.9 COMMUNITY / NETWORKS / WORKSHOP

8.17 Openness *(Co-creation, Contribution - for professional stakeholders)*

8.17.1 CRM / CONTRIBUTION / WORKSHOP

8.17.2 CONTRIBUTION / ARCHITECTS' APPROACH

8.17.3 MARKETING / ARCHITECTS' APPROACH / DESIGNER

8.17.4 CONTRIBUTION / CRM / WORKSHOP

8.17.5 CO-CREATION / WORKSHOP / THOUGHT LEADERSHIP

8.17.6 CONTRIBUTION / WORKSHOP / DESIGN

8.17.7 CONTRIBUTION / WORKSHOP / CO-CREATION

8.17.8 CO-CREATION / DESIGN PROCESS / WORKSHOP

8.17.9 CONTRIBUTION / DESIGNER

8.17.10 CO-CREATION / WORKSHOP

8.17.11 SKETCHES / CO-CREATION / DESIGN

8.18 Participation *(Participatory, Normative – for non professional stakeholders)*

8.18.1 PARTICIPATION

8.18.2 PARTICIPATION / WORKSHOP

8.19 Networks *(programmer, switcher)*

8.19.1 SWITCHER / CRM

8.19.2 SWITCHER

8.19.3 SWITCHER

8.19.4 CRM / NETWORKS / WORKSHOP

8.19.5 BARTER

8.19.6 BARTER / WORKSHOP

8.19.7 BARTER

8.19.8 PROGRAMMER

8.19.9 SWITCHER / BARTER / WORKSHOP

Generative Subcategories:

Generative Subcategory 8.1:

8.1 Generative Proposition (5):

Workshops are formally structured, visually documented and driven by theoretical and trend analysis constituencies of the program. The purpose of the program goes beyond thought leadership, including relationship management and product innovation.

8.1.1 THOUGHT LEADERSHIP / FUNCTIONAL KNOWLEDGE
8.8.10 THOUGHT LEADERSHIP / WORKSHOP / VISUALIZATION

Generative Subcategory 8.2:

8.2 Generative Proposition (5):

Workshops leverage a flexible, scalable format, based on prior expert interviews, to intuitively deliver insights and concepts, which will be converted for 1% - 5% into product solutions and CRM relationships. Such conversion from future visions into company R&D and technology development requires additional work beyond the workshop as such. Workshops offer content (barter) and trigger new relationships (switcher). Marketing leadership controls access to workshops. Genius forecasting modalities apply to the overall process.

8.1.2 WORKSHOP / ROADMAP CONVERSION / FREESTREET
8.1.3 WORKSHOP / ROADMAP CONVERSION
8.1.4 WORKSHOP / INSIGHTS / BEYOND FUNCTIONAL
8.1.5 WORKSHOP / ROADMAP / DESIGN
8.1.9 WORKSHOP / MONITORING
8.3.3 WORKSHOP / BARTER / SWITCHER
8.4.5 WORKSHOP / TECHNOLOGY / EDUCATIONAL
8.4.6 WORKSHOP / MULTIPURPOSE / WROCLAW
8.5.8 WORKSHOP / MARKETING OWNERSHIP
8.6.2 WORKSHOP / GENIUS FORECASTING
8.6.5 WORKSHOP / MARKETING / WROCLAW
8.7.2 WORKSHOP / INSIGHTS / TECHNOLOGY / HORIZON 2
8.8.2 WORKSHOP / MOCK UPS
8.9.1 WORKSHOP / FALSIFIABLE
8.9.2 WORKSHOP / GENIUS FORECASTING

Generative Subcategory 8.3:

8.3 Generative Proposition (1):

Trend thematic clusters (Decluttering) as identified in the program and observed in any of its ancillary spin off, lead product development into innovative solutions (Freestreet).

8.1.6 ROADMAP / FREESTREET / DECLUTTERING
8.1.7 ROADMAP / INSIGHTS / FREESTREET
8.7.1 ROADMAP / FREESTREET

Generative Subcategory 8.4:

8.4 Generative Propositions (2):

Design Thinking is at the basis of the program, which is structured according to a future-oriented, multidisciplinary, playful design process. The program fails to rise to company process status, being managed as an individual project. The program promotes the professional value of lighting design in general. The connections between new products and program remain unclear to external stakeholders.

8.1.8 DESIGN / ROADMAP
8.2.2 DESIGN / THOUGHT LEADERSHIP
8.3.2 DESIGN / MULTIPURPOSE
8.5.4 DESIGN / BUDGET MANAGEMENT / CONTINUITY IN TIME
8.11.5 DESIGN / DESIGN PROCESS
8.11.6 DESIGN / DESIGN PROCESS / TECHNOLOGY
8.11.7 DESIGN / DESIGN THINKING

Generative Subcategory 8.5:

8.5 Generative Proposition (5):

From visioning to prototyping, the socio-cultural matrix is the para-scientific, analytical, clear starting point of a hands-on lighting design workshop. The matrix transfers

knowledge to workshop participants, while working as a knowledge management reference for the business unit. The matrix potentially enables the creation of a company database of potential R&D, while offering a monitoring opportunity ("sanity check"). The matrix can generate new tools to address specific project challenges, when adopted.

8.1.10 MATRIX / WORKSHOP / INNOVATION LOOP / MONITORING
8.4.3 MATRIX
8.8.1 MATRIX / TECHNOLOGY
8.8.3 MATRIX / FALSIFIABLE
8.8.4 MATRIX / DESIGN PROCESS
8.8.5 WORKSHOP / MATRIX / BARTER
8.8.6 MATRIX / DESIGN / WORKSHOP
8.8.7 MATRIX / SOCIO-CULTURAL
8.8.8 MATRIX / LEVERAGED
8.8.9 MATRIX / LEVERAGED

Generative Subcategory 8.6:

8.6 Generative Proposition (4):

Sales team members and internal design team members of the business unit join the program for educational and observation purposes only, delivering enabling support to stakeholders but without any attempt to perform direct sales.

8.1.12 REFLEXIVE / SALES

Generative Subcategory 8.7:

8.7 Generative Proposition (5):

The practical goal of the program is converging towards a dialog with stakeholders, excluding direct sales, where workshop mock-ups are conversation triggers.

8.2.1 MULTIPURPOSE / BRAND THEME
8.2.3 MULTIPURPOSE / MOCK UPS

Generative Subcategory 8.8:

8.8 Generative Proposition (5):

Benefits of the program are appreciated at level of brand perception and CRM profiling. Workshops are challenged in terms of their commercial value (conversion to sales). It is doubtful that NPS technically offers the possibility to evaluate people's performance and the program in general. Feedback is provided by sales organizations.

8.2.6 NPS
8.2.4 NPS / KPI / NETWORKS
8.2.5 NPS / CRM / WORKSHOP

Generative Subcategory 8.9:

8.9 Generative Proposition (3):

The program is a multi-level urban research platform.

8.3.1 MULTIDISCIPLINARY

Generative Subcategory 8.10:

8.10 Generative Proposition (2)

The program exists for 20 years and is internally recognized. Extensions of the program (e.g., awards) are owned by the business unit and represent a branding opportunity. Further networking extensions might result in the program being perceived as a sub-brand in itself.

8.3.5 BRAND THEME
8.3.6 BRAND THEME / CONTINUITY IN TIME
8.3.7 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD
8.3.8 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD
8.3.9 BRAND THEME / EXTENSION: CITY.PEOPLE.LIGHT AWARD
8.6.4 BRAND THEME / CRM / NETWORKS

Generative Subcategory 8.11:

8.11 Generative Proposition (5):

The theoretical constituencies of the workshops might be increased in time and simplified in format, although knowledge sharing and learning opportunities are recognized as “accessible” internally. The educational, academic and research constituencies of the program represent unique value, perhaps beyond the understanding of the business unit.

8.4.1 EDUCATIONAL / MULTIPURPOSE / DESIGN
8.4.2 EDUCATIONAL / WORKSHOP
8.4.7 EDUCATIONAL / WORKSHOP / MATRIX
8.4.8 EDUCATIONAL / DESIGNER
8.3.4 EDUCATIONAL / UNIQUENESS

Generative Subcategory 8.12:

8.12 Generative Proposition (5):

Workshops offer a key moment of informal interaction and knowledge exchange among professional stakeholders. The program does not result in a specific professional community, especially in terms of social media perspective.

8.4.4 COMMUNITY / DESIGNER
8.16.5 COMMUNITY / SOCIAL MEDIA
8.16.7 COMMUNITY

8.16.8 COMMUNITY / MATRIX / WORKSHOP
8.16.9 COMMUNITY / NETWORKS / WORKSHOP

Generative Subcategory 8.13:

8.13 Generative Proposition (1):

The budget allocation to enable the program gets challenged from one edition to the next, in spite of the repetitive nature of the program.

8.5.1 BUDGET MANAGEMENT
8.5.6 BUDGET MANAGEMENT / MARKETING / CONTINUITY IN TIME

Generative Subcategory 8.14:

8.14 Generative Proposition (5):

The workshops are initiated by marketing as a brand exposure opportunity for CRM ("door opener"), with participant invitation depending on country sales team selection. Invitation and inclusion are determined by role and responsibilities of decision makers, architects and urban lighting related professionals. The program is intended as extended in time.

8.5.2 MARKETING OWNERSHIP / NETWORKS / WORKSHOP
8.5.3 MARKETING OWNERSHIP / CRM
8.5.7 MARKETING OWNERSHIP
8.16.2 MARKETING / SWITCHER / DESIGNER
8.16.3 MARKETING / SWITCHER / WORKSHOP
8.16.4 MARKETING / SWITCHER
8.16.6 MARKETING / SWITCHER
8.17.3 MARKETING / ARCHITECTS' APPROACH / DESIGNER
8.5.5 MARKETING / CONTINUITY IN TIME / WORKSHOP

Generative Subcategory 8.15:

8.15 Generative Proposition (2):

The program is not optimally shared within the business unit and corporation.

8.6.1 NOT LEVERAGED

Generative Subcategory 8.16:

8.16 Generative Proposition (2):

The program triggers an intuitive mindset possibly resulting in informal and non-systematic monitoring practices in regular project work.

8.1.11 MONITORING / GENIUS FORECASTING

Generative Subcategory 8.17:

8.17 Generative Proposition (5):

Workshops offer both the business unit and stakeholders a platform to mutually switch into networks. The business unit accesses exclusive professional circles. Invitation to join the program is perceived as a status marker in professional terms. Program extensions (e.g., awards) are motivating for stakeholders.

8.6.3 SWITCHER / BRAND THEME
8.19.1 SWITCHER / CRM
8.19.2 SWITCHER
8.19.3 SWITCHER
8.19.9 SWITCHER / BARTER / WORKSHOP

Generative Subcategory 8.18:

8.18 Generative Proposition (5):

Country market sales teams determine workshop attendance, based on their insights in local networks. Workshops are engaging and entertaining. There is no specific follow up designed after workshops.

8.6.6 CRM
8.16.1 CRM / SWITCHER / WORKSHOP
8.17.1 CRM / CONTRIBUTION / WORKSHOP
8.19.4 CRM / NETWORKS / WORKSHOP

Generative Subcategory 8.19:

8.19 Generative Proposition (5):

During workshops, sketching enables the best future visioning and idea generation, as they support concept creation beyond current feasibility. Sketches need to be managed during and after workshop in view of future publication, possibly involving senior designers as ancillary illustrators.

8.7.3 SKETCHES / HORIZON 3
8.10.3 SKETCHES / SCENARIO / GENERATING / WORKSHOP
8.17.11 SKETCHES / CO-CREATION / DESIGN

Generative Subcategory 8.20:

8.20 Generative Proposition (2):

The program is open to include radical wild card hypothesis, including the future elimination of artificial lighting and its implications.

8.7.4 HORIZON 3

Generative Subcategory 8.21:

8.21 Generative Proposition (5):

Workshops include the synthesis of distinctive expert interviews with thought leaders, as executed before. The program enables stakeholders to engage in personal reflexivity on the lighting design professional practice.

8.10.1 INTEGRATING / DESIGNER
8.10.2 INTEGRATING / INTERVIEWS / WORKSHOP

Generative Subcategory 8.22:

8.22 Generative Proposition (2):

The program is not technology driven and is not designed for an engineering mindset.

8.11.1 TECHNOLOGY / REFLEXIVE
8.11.2 TECHNOLOGY / HIGH DESIGN
8.11.8 TECHNOLOGY

Generative Subcategory 8.23:

8.23 Generative Proposition (3):

The program can be identified as a “design program”, enabling deeper reflection on the lighting design professional practice than fast paced project delivery delivery.

8.11.3 HIGH DESIGN
8.11.4 HIGH DESIGN / MARKETING

Generative Subcategory 8.24:

8.24 Generative Proposition (5):

Workshop participants contribute to and lead concept design, based on teamwork dynamics. The program is designed as outside-in and from one edition to the next one it opens itself to higher involvement by inviting increasingly applicative professional stakeholders.

8.17.2 CONTRIBUTION / ARCHITECTS’ APPROACH
8.17.4 CONTRIBUTION / CRM / WORKSHOP
8.17.6 CONTRIBUTION / WORKSHOP / DESIGN
8.17.7 CONTRIBUTION / WORKSHOP / CO-CREATION
8.17.9 CONTRIBUTION / DESIGNER

Generative Subcategory 8.25:

8.25 Generative Proposition (5):

Workshops are knowledge exchange intensive experience, with a maximum degree of stakeholder contribution, which can be perceived as co-creation. The business unit provides a solid framework based on pre-existing knowledge.

8.17.5 CO-CREATION / WORKSHOP / THOUGHT LEADERSHIP
8.17.8 CO-CREATION / DESIGN PROCESS / WORKSHOP
8.17.10 CO-CREATION / WORKSHOP

Generative Subcategory 8.26:

8.26 Generative Proposition (5):

Workshops are focused on urban planning for professional stakeholders. A wider audience, e.g. citizens, would negatively affect the process and individually feel alienated. Citizens might be instead consulted at different times.

8.18.1 PARTICIPATION
8.18.2 PARTICIPATION / WORKSHOP

Generative Subcategory 8.27:

8.27 Generative Proposition (5):

Workshops are designed as knowledge exchanging events, where 50% of the time is invested in providing stakeholders with valuable research and 50% of the time is invested in earning back value from stakeholders.

8.19.5 BARTER
8.19.6 BARTER / WORKSHOP
8.19.7 BARTER

Generative Subcategory 8.28:

8.28 Generative Proposition (2):

The program is focused on engaging with multiple stakeholders and activating feedback loops. The approach behind the program is more important than its actual content.

8.19.8 PROGRAMMER

APPENDIX D

EMPIRICAL SECTION III
PRIMARY RESEARCH DATA GATHERING

EXPERT INTERVIEWS
ITEM LIST

NOTE ON INTERVIEW EXECUTION:

Interviewees are kindly invited to frame their knowledge perspective with focus on how they think one can come to a vital, workable and supportive future perspective by leveraging the city.people.light approach, including its derivative programs “Livable Cities” (EMEA) and “Architects of Light” (Poland, Czech Republic).

1) BACKGROUND INFORMATION

1.1 What is your position within the city.people.light or Livable Cities value chains?
1.2 What is your track record in terms of participation or leveraging CPL programs?
1.3 What is your reporting line in your context, both to you as well as from you?
1.4 What is your professional area of specialization, e.g. design, marketing?
1.5 What is your educational and training background both formal and informal?

2) PROGRAM STRUCTURE AND GOALS (LIMITED TO TARGETS AND RESULTS THAT DO NOT PERTAIN THE QUANTIFIED NUMBERS OF SALES OR TURNOVER)

2.1 what were the KPI goals of the program, e.g. NPS, excluding any quantifiable financial targets directly related to sales?
2.2 what were ancillary and non-measurable objectives of the program?
2.3 what was the time duration of the program and why?
2.4 what was the geographical spread of the program and why?
2.5 where was the program allocated in terms of functional management and why?
2.6 who was invited to partake the program and what was their role and responsibility?
2.7 how was the after care in terms of relationship management planned and executed?
2.8 what was the relationship between this and other futures / design based programs?
2.9 could you provide any documental evidence to support any / all above answers?

3) CRM VS. COMMUNITY

3.1 what were the CRM objectives in terms of NPS, strategic marketing, or any other form, excluding any quantifiable financial targets directly related to sales?
3.2 what were the community or social objectives in terms of co-design?
3.3 who was involved and who was excluded from partaking in any related communities?
3.4 what was the connection between this program and professional communities?
3.5 did this program enable the creation or tapping into any “inner circles”, and how?
3.6 could you provide any documental evidence to support any / all above answers?

4) TECHNOLOGY AND INNOVATION (LIMITED TO APPLICATIONS AND SOLUTIONS THAT ARE ALREADY ON THE MARKET OR COMMUNICATED)

4.1 what was the role of lighting technology in general in this program?
4.2 what was the role of Philips Lighting applications and solutions in this program?
4.3 was Philips Lighting technical staff directly involved and why / how?
4.4 how did the program influence technology development within Philips Lighting, excluding any applications or solutions that are still company confidential?
4.5 were any feedback loops set up from R&D back to event participants at any point?
4.6 what specific department took up the potential innovations assets for development?
4.7 could you provide any documental evidence to support any / all above answers?

5) KNOWLEDGE MANAGEMENT

5.1 how was knowledge input into the program gathered and optimized?
5.2 how was knowledge distributed in the context of the program?
5.3 how was knowledge output from the program distributed and leveraged?
5.4 which program knowledge would you classify as “instrumental”, excluding any applications or solutions that are still company confidential??
5.5 which program knowledge would you classify as “monitoring”?
5.6 which program knowledge would you classify as “reflective”?
5.7 could you provide any documental evidence to support any / all above answers?

6) CO-CREATION

6.0 how is the program participatory or co-creative in terms of general approach?
6.1 which module or parts of the program are intrinsically co-creative?
6.2 which extensions or applications of the program are subsequently co-creative?
6.3 does the program enable a co-creative follow up within company processes?
6.4 does the program enable a co-creative follow up beyond company processes?
6.5 does the program enable a co-creative development of future technologies?
6.6 does the program enable a co-creative development of future branding themes?
6.7 could you provide any documental evidence to support any / all above answers?

7) DESIGN

7.1 how was “Design Thinking” leveraged in this program and why?
7.2 what was the role by design in connecting the program to people futures focus?
7.3 what was the role by design in translating technology into program assets?
7.4 what was the role by design in translating program findings into company assets?
7.5 what was the role in determining unique qualities of the workshop and why?
7.6 can this program be defined as High Design and why?
7.7 could you provide any documental evidence to support any / all above answers?

8) OPEN COMMENTS

8.1 would you like to add any open comments about the program itself?
8.2 would you like to add any open comments about the context of the program?
8.3 would you like to add any open comments about the steps after the program?
8.4 would you like to add any open comments about the preparations for the program?
8.5 would you like to add any open comments on any additional subject?
8.6 could you provide any documental evidence to support any / all above answers?

BIOGRAPHICAL NOTE

MARCO BEVOLO is currently Lecturer in International Leisure Management at NHTV University of Applied Sciences, Breda. He is the founder of Marco Bevolo Consulting, working for selected customers in Europe and Asia, including FIAT Chrysler Automobiles (FIAT Design Center, Turin), Lighting Design Collective (Madrid) and Municipality of Eindhoven (The Netherlands). In this extracurricular capacity, since 2011 he has been the Principal Research Urban Futures for Philips Lighting in Europe. He is the editor / co-author of four books, including the global edition of city.people.light (2007), an anthology of world class urban futures concepts, and the European "Create the Livable City" (2014), published by AJ Books EMAP (with Tapio Rosenius). He is the recipient of a 2011 Award of Excellence by Emerald Literati, together with Dr. Alex Gofman, and others.

Until 2009 he was a Director at Philips Design headquarters in the Netherlands, where he was the driving force behind CultureScan, the cultural futures research program. He primarily works in the areas of strategic design, people research and thought leadership. He graduated in Psychology of Communication from the University of Turin. Bevolo started his professional career at Italdesign Giugiaro in 1990. He was Editor in Chief for Intervista, an Italian lifestyle editorial spin off from Flash Art. Bevolo worked as copywriter with Armando Testa for clients like P&G and Bolton, joining Euro RSCG in 1998.

Bevolo is also the author of "The Golden Crossroads" (2009, Palgrave, UK) and of "Premium by Design" (Gower / Ashgate, 2011), the latter in collaboration with Howard Moskowitz, PhD, and Alex Gofman, PhD. He has had work published in the "Event Design" (2014, SAGE, edited by Prof. G.Richards, UvT), "Prestige Retal" (2014, edited by Prof. R.Peiser, Harvard), "The New Everyday" by 010, Rotterdam (2004, edited by Prof. E.Aarts and Dr. S.Marzano), in the Italian book "Nuova Enciclopedia della Comunicazione" (1994, Edited by F.Lupetti), as well as in the renowned Japanese design magazine Axis and in the Design Management Review of Boston. He was interviewed on cultural futures, trends and branding by the Korean national TV, Repubblica, ViewPoint, Der Spiegel and Marketing Tijdschrift. As journalist and researcher, he engaged in dialogs the likes of Richard Meier, Robert Venturi, Denise Scott Brown, Miuccia Prada, and more. Together with his co-authors, he is the recipient of one award nomination by Emerald Literati for Best Paper (2011) and two award nominations by ESOMAR for best conference paper (2009 and 2006).

He lectured at the UNAM Post-graduate School of Architecture of Mexico City, at the Temasek Polytechnic of Singapore, at the Art Center College of Design in Pasadena, and as module coordinator of the Master of Arts in Design Management at INHOLLAND of Rotterdam. He has been regularly invited to contribute at leading events by ESOMAR, Design Management Institute and the Global Urban Summit, (Rotterdam, 2010).

PhD PUBLICATIONS

An earlier version of Chapter 4 of this PhD was published in English language under the editorial review of Prof. Dr. J.M. Gurr, University of Duisburg-Essen, as:

Bevolo, M. (2013), *Design as Research Method to envision preferable Urban Futures*, in:

CAENERS, A., EISINGER, M., GURR, J.M., SCHMIDT, J.A. (2013), *Healthy and Liveable Cities*, Joint Center "Urban Systems" at the University of Duisburg-Essen, AV Edition, Wuppertal (BRD), 122-135

SELECTED SHORTLIST OF PUBLICATIONS

Author	AB	Year	Title	Place	Published by: / Published in:
Bevolo, M., Gofman, A., Moskowitz, H.	B	*2011*	*Premium by Design*	*UK*	Gower, a business division of Ashgate ISBN: 978-1-4094-1890-0
Bevolo, M.	B	*2009*	*The Golden Crossroads*	*UK*	Palgrave ISBN: 9.78023E-12
Gofman, A, Moskowitz, H, Bevolo, M, Mets, T.	A	*2010*	*Decoding consumer perceptions of premium products with rule developing experimentation*	*USA*	Emerald, *Journal of Consumer Marketing (Literati Award of Excellence 2011)*
Gofman, A., Bevolo, M., Moskowitz, H.	A	2009	*Role of Corporate Leadership and Innovation Claims on Consumer Perception of Premium Products*	UK	Imperial College Press, *International Journal of Innovation Management*
Bevolo, M. (Ed.)	B	2007	City.People.Light	Eindhoven	Philips Lighting ISSN 1874-7027
Bevolo, M., Shofu R., Moskowitz, H.	B	2009	Putting fragrance into perspective	Cannes	ESOMAR, *Conference Paper, Award Nominated*
Bevolo, M., Price, N.	B	2006	Towards the evolutions and revolutions in futures research	New York, US	ESOMAR, *Conference Paper, Award Nominated*
Bevolo, M., Brand, R.	B	2003	Brand Design for the Long Term	Boston, US	*Design Management Review*

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